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[See list on page V of Volume I]

Economics
The Science of Business

By

Joseph French Johnson
Dean, New York University School of Commerce, Accounts and Finance; President, Alexander Hamilton Institute

Modern Business Texts
VOLUME 2

Alexander Hamilton Institute
New York

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PREFACE

The first volume of the Modern Business Text deals with the individual in his relation to business. "Economics — The Science of Business" is concerned with business in its relation to the individual. As here understood, business comprehends all systematic effort which men make to acquire the means of sustaining life and enjoying it. In the modern world this involves a complicated system of voluntary and involuntary cooperation. The underlying rules of these relationships make up economics. In one sense they are the rules of the business game. Success in individual enterprises arises from skilled adjustment of the conduct of the enterprise to these general conditions of business activity. Those who are not informed as to general principles of value, price, rent, interest, wages, profits and all the other specific things that the economist considers play the business game blindly.

Business arises from the fact that men have varying needs, varying gifts and varying possessions. The adjustment of their needs to conditions revolves in large part about their views of the value of different goods. Hence value is the central point in any discussion of the world of business, and this is appropriately the central theme of the first part of the volume. These chapters show the intimate relations of value to the problems of the producer, the consumer and the trader—and all of us appear in one, if not more, of these capacities—and seek to brush away the cobwebs which have been spun about these fundamental conditions.

What the world produces reaches its destination thru the processes of exchange, and the parts which money and credit play in bringing about the desired results are discussed in the latter part of the book. As already noted, the world's product is the result of the cooperation of several different factors. How the product is actually distributed to them in the form of wages, rent, interest and profits forms the concluding part of this discussion.

As a whole the Text aims to present a simple, readable analysis of the world of business—the necessary foundation for the more detailed consideration of business principles and processes to which the remainder of the Modern Business Text is devoted.

At various points in the volume and especially in the treatment of the exchange processes I am indebted to the helpful cooperation of Dr. Frank L. McVey, President of the University of Kentucky.

Joseph French Johnson

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ECONOMICS

THE SCIENCE OF BUSINESS

CHAPTER I

PURPOSE AND SCOPE OF ECONOMICS

1. *Economics defined.*—Like any of the sciences, economics, or political economy, as it is often called, may be defined in different ways. For the practical man the simplest definition is this: Economics is the science which seeks to explain all business phenomena. Briefly, it is the science of business.

That definition, however, takes it for granted that the reader knows exactly what is meant by business. When we analyze the term we find that in its broadest sense business embraces all forms of human activity which have for their purpose the increase of wealth, that is to say, of all the things which men desire to possess. Viewing economics from this angle we may define it as the science which seeks to explain the phenomena incident to the production, consumption, exchange and distribution of wealth. A definition something like that will be found in the "Principles of Political Economy" of John Stuart Mill, England's greatest economist. This definition is sometimes condensed as follows: Economics is the science of wealth. Modern economists seldom use this definition for the reason that the word "wealth," as we shall see later, is a popular term which cannot be defined in a clear-cut and scientific fashion.

When we consider that all forms of human activity have for their purpose the gratification of our wants we can quite properly define economics as the science which is concerned with all phenomena incident to man's efforts to get what he wants, especially in so far as those efforts lead him to hire the services of others or to buy and sell goods.

Whatever formal definition we accept it is sufficient at the outset for the reader to know that economics is concerned with the problems of values, prices, wages, interest, rent and profits, and with the human and physical factors upon which these things depend. These are terms concerning which every business man has some knowledge. It is the purpose of economics to make that knowledge more definite, scientific and satisfactory.

2. *Why economics is a science.*—Science seeks to understand phenomena; it addresses itself solely to the intellect. It gives pleasure and satisfaction only to those who love the truth and enjoy intellectual achievement.

Art aims to utilize the qualities of material objects or the faculties of human beings in such fashion as to give men pleasure or satisfaction. Its appeal is not to the intellect but to the emotions, or the senses, or the æsthetic side of human nature. The scientist seeks to know, to understand, to explain; the artist seeks to please, and in his efforts is often assisted by the discoveries of the scientist.

Economics deserves to be called a science because it aims at an understanding of business phenomena. Just as does the physicist or chemist, the economist first classifies the phenomena which he wishes to study and then proceeds to inquire into the causal relations existing between them. With him, as with every scientist, the eternal question is "why." In the complex field of business he sees changes constantly taking place, prices and wages rising, interest rates declining, wage earners striking, and he wants to know what causes these things.

His science cannot be an exact one like physics or mathematics for the simple reason that many of the causes of business phenomena are rooted in the variable and conflicting desires of men, and these desires he cannot accurately estimate, nor can he foresee changes in them.

Why are building rents higher on Broadway than in Jersey City?

Is the high rent of farm lands the cause of high prices for foodstuffs?

What effect will an increase in the country's money supply have upon prices and the rate of interest?

Why does a movie actor command a fabulous salary while in 1921 a man permanently hired on a farm averaged $29.48 a month with board?

Why is the value of a country's exported merchandise for many successive years in excess of the value of its imports?

Problems of this sort—and there are hundreds of them—are the kind over which the economist puzzles.

3. *Why often called political economy.*—While the economist as a scientist is concerned altogether with the understanding of phenomena, nevertheless it has often happened that his conclusions have been helpful to statesmen in shaping the trade and industrial policies of a nation. Indeed, the so-called father of political economy, Adam Smith, made his famous study of the subject for the purpose of discovering those policies of trade and production which were best adapted to enrich a nation. That is why he called his book, published in 1776, "The Wealth of Nations," a book which so greatly emphasized the advantages of free trade that England, in 1846, abandoned its historic policy of protection.

Because of this intimate relation between the conclusions of the economist and the welfare of a nation the science was commonly known as political economy for a hundred years after Adam Smith. That name, however, has been less used in recent years for the reason that modern economists are not, as a rule, politicians or statesmen and probably do not wish to have their efforts even seem to be colored by partisanship. The economist, like the chemist or any other scientist, tries to find the truth and not to defend this or that policy. Just as the physical sciences have shown the way to more productive farming, more hygienic cooking, and more sanitary ventilation, so the discoveries and demonstrations of the economist are pointing the way to a wiser distribution of wealth, to better banking systems, and perhaps even to the abolition of poverty. When his work is considered in this aspect it is quite natural to call his science political economy, just as the Germans call it national economy.

4. *English classical school.*—Political economy is essentially a modern science. Prior to Adam Smith's time there had been much vague and rather unscientific discussion and writing about the problems which we now call "economic," but the ideas and conclusions of the authors of the earlier centuries would be deemed almost valueless at the present time. One group of writers known as the "mercantilists" exaggerated the importance of gold and silver, and held that a nation's wealth was best measured by the amount of precious metals in its possession. It was their view that a country should seek by every possible device to enlarge its exports and reduce its imports to the minimum in order that foreign nations should be compelled to send it gold and silver.

A later group of writers called the "physiocrats," most of whom lived in France, attacked the reasoning of the "mercantilists" and emphasized the importance of agriculture. The sources of a nation's wealth, they held, lay in Mother Earth and not in trade.

Adam Smith discussed the subject of wealth production and distribution more clearly, comprehensively and logically than any preceding writer. His successors in England during the next hundred years created a rich literature in economics, elaborating and amending his views. These writers are commonly referred to as the English Classical School of Political Economy. The most important of them were Thomas Malthus, famous for his "Theory of Population," published in 1798; David Ricardo (1772–1823), author of "Principles of Political Economy," published in 1817, a successful business man who retired in middle life and devoted himself to economic studies, achieving distinction because of the remarkable clearness and vigor of his thought, especially when treating the subjects of rent and money; and John Stuart Mill, a distinguished English philosopher, whose "Principles of Political Economy," published in 1847, is the crowning work of the English school and is probably the greatest treatise on economics that has ever been written despite the fact that many of its conclusions are rejected by many modern writers.

Mill and his colleagues of the English school treated economics as a science of wealth. They thought of wealth as consisting of all desirable commodities the supply of which was less than the demand. Since their discussions were especially concerned with the production and consumption of material commodities, the science of economics fell into disrepute in many quarters as being materialistic.

5. *Austrian and historical schools.*—About 1880 certain writers in Austria began to develop the science from the human side, starting with a study of the nature of human wants. They placed greatest emphasis, not upon material wealth, but upon psychological income. The gratification of human wants, they proclaimed, is the real aim of labor and enterprise, and this is attained as well thru labor or services which give men satisfaction but create no tangible, material products as thru labor which does create such products. The views of the so-called Austrian school have greatly influenced the thinking of all modern economists, and have served to throw light into many dark places. For example, the English classical economists taught that labor which produced no tangible commodity was unproductive. In their opinion, the farmer and the manufacturer were productive laborers, but lawyers, bankers, merchants, preachers, teachers, artists and musicians were unproductive. It is now plainly seen that such a division of the different classes of workers cannot be made. All are equally productive if they succeed in rendering a desired service.

The so-called historical school of economists deserves a word. It has flourished principally in Germany and was the outgrowth of a revolt against the ultra deductive method of the English classical school, its supporters holding that induction was the proper logical method. Only by a thoro study of the facts and statistics of the past, they claim, can we arrive at a scientific understanding of the laws governing the production and distribution of wealth.

Economists today are endeavoring to utilize as far as possible the advantages of the methods employed by the different schools.

6. *Relations of economics to ethics.*—Economics is chiefly concerned with the phenomena of the business world, with facts as they are, with what is, rather than with what ought to be. It is not the economist's primary purpose to defend or justify any existing industrial methods or policies.

Yet many ethical questions arise which he of all men is best fitted to answer. For example, he is able to show most clearly that employers who are indifferent about the health and welfare of their employes are at fault economically as well as ethically, that in the long run a country cannot greatly prosper if public sentiment tolerates injustice to the working classes, or if the rich are unwilling to make sacrifices in order that the condition of the poor and ignorant may be bettered.

In economics the word "ought" always connotes an increase in the productive power and welfare of the people. Should there be a minimum wage law? No economist will answer that question until he has carefully considered the probable effects of such a law, not merely upon the condition of the comparatively few laborers for whose special benefit it is to be enacted, but also upon the productive power of all the people, now and hereafter.

Hence it is wrong to say that economics is as independent of ethics as is a physical science. It deals with most important human activities. If it finds that some of these activities are illegal, or are in violation of the moral law, or that they involve manifest injustice to certain classes of society, it cannot and does not hesitate to say so.

7. *Income.*—It is well for the reader at the outset to get a clear idea of the full meaning of the word income, for it embodies the entire subject matter of economics. The purpose of all human labor is income.

In the last analysis all income is psychical or mental. It is the pleasure or satisfaction we get out of the consumption of material goods, out of our food and clothing, out of the comfort of our homes, out of our enjoyment of music, out of the wondrous beauties of nature, out of the charm of an oil painting, or even out of the very joy of living if we are in good health and have friends.

Much of this psychical income or satisfaction we get without labor thru the abundant generosity of nature, but with income of this sort the economist is not concerned except in so far as men labor and save that they may be in a position to enjoy it later in life undistracted by business cares. For example, a man and his wife may work diligently and live most economically until they are fifty years old, saving every possible dollar in order that they may spend their remaining years in a beautiful country home where their most prized income will not be in the form of money or material wealth, but in books, music, healthful exercise and the society of their children and grandchildren. All thoughtful men realize that things of this sort are generally worth working for far more than the ownership of any amount of material wealth which can be measured in terms of money.

8. *Money income.*—Nevertheless, in business, the word income is always thought of in connection with money. If you ask what a man's income is you will be told it is so many thousand dollars a year. Nobody will undertake to describe his psychic income. That is the ultimate thing for which he works, yet it is imponderable and not even he himself can give you much idea of its extent or amount. The economist merely knows that a dollar means much more to one man than it does to another. He knows that some men waste money, that they do not get out of it the satisfaction or psychical income which they might obtain. He knows also that the man with the large money income is liable to squeeze less satisfaction out of a dollar than the man with a small one. It is sufficient for us now to know that in business the word income ordinarily implies the idea of money.

9. *Real income.*—Economists sometimes speak of a man's real income and it is not difficult to explain what they mean. By real income is meant the things which a man buys with his money income. Suppose, for example, that a skilled artisan in a small city is earning $2,200 a year and that he must spend all of

his money income in the support of himself and family. If he moves to a large city where the prices of the necessaries of life are much higher than in his former home and his money income remains the same, his real income will decline, for he will be able to buy less. Yet we should note that possibly his psychic income will be greater, perhaps because his children have better opportunities for education, or perhaps because one of his daughters has a fine voice and can have it more properly trained and developed in the city than in the country. But the economist cannot make these fine distinctions. He is obliged to assume that, as a rule, working men think first and last of their money incomes and that they will not voluntarily and knowingly submit to a reduction of their real incomes.

In ordinary times men give no thought whatever to real income. The phrase would puzzle them. All they think of is money income, and if salaries or wages are raised they are pleased; but in extraordinary times circumstances may force the distinction upon them. When in 1914 the war between the Central Powers and the Allies caused a rapid and spectacular rise in the prices of foodstuffs and of many of the necessaries of life, no man had to be an economist in order to see clearly that real incomes were declining. To meet this situation the money wages of most of the laboring classes were greatly increased.

10. *Private property.*—Two most important institutions of human society are the family and property.

The test of private property is (1) the exclusive right of use and control, (2) the recognition of this right by others and (3) the willingness and power of some constituted authority to maintain this right against all comers.

The pursuit of agriculture introduced the idea of permanent property in the soil. It became necessary to protect the tiller in his property rights in order to secure a continuance of tillage. The incentive to save, as well as the encouragement to produce, led in time to the creation of the capitalist system, under which, in most productive processes, the tools are owned by others than those who use them.

Private property has been established as an institution because it is potent to increase the power of society over the external conditions of existence. Nevertheless society has seen fit to modify the right of private property in many instances. An owner may not withhold his property from public use when it is needed for the public good; nor may he use it in ways opposed to the public good.

The view that the right to private property is inherent and inalienable has been superseded by another, that this right is a matter of social expediency based on the needs of society. Consequently, the right may be restricted or abolished when in the judgment of society its disadvantages outweigh the advantages.

11. *Social unrest.*—Much discontent is manifested today, especially in newspapers and periodicals intended to circulate among the poor, with regard to

the great fortunes which a large number of men have accumulated during the last generation. It is claimed that the disparity between the condition of the rich and the poor is evidence of social injustice which demands instant remedy. During the last twenty years legislative bodies in most civilized countries have as a result given much of their time to the enactment of laws intended to benefit the so-called working classes. Most economists are in sympathy with the purpose of all this legislation, such as the minimum wage law, child labor laws and the eight-hour day law, but they know very well that no permanent improvement in the condition of the so-called masses can be made until there is a clear understanding of the reasons why the incomes of certain classes are inadequate.

To people who are ill-fed and badly housed, whose wages are pitifully low, the attitude of economists toward them may seem one of callous indifference, but it is not. The economist forever dreams of an economic millennium in which every man shall do the work he loves best, be happy in doing it, and receive compensation that will enable him to support himself and family in comfort and secure for his children the training and education that will fit them for well-paid services. But the economist knows that dreaming, hoping and sympathizing will accomplish nothing. He must make clear what are the causes of the inequality of incomes. Only when he does this can laws be enacted which will be more palliative.

For several thousand years the human race guessed at remedies for malaria. Scientific investigation discovered the cause in the mosquito, and there is reason to hope that the disease will finally disappear. Unfortunately it is not likely that any such simple cause of economic evils will ever be discovered. The causes are complex. For that reason in this field of the distribution of income the economist faces many difficult problems.

12. *Origin of the present economic order.*—The present system of production is sometimes called the competitive system because of the part which competition plays, and sometimes the capitalistic system because of the great importance of capital as a factor of production.

Two thousand years ago economic goods were produced in the main by slaves. During the Middle Ages slavery in Europe gave way to what is known as the feudal system, under which men had certain property rights but little choice of occupation. In towns and cities arose the gild system, in which men employed in a particular industry were organized with power to prevent outsiders from entering the industry except by permission of the gild or organization. With the development of the spirit of democracy, especially after the French Revolution, the economic as well as the political rights of the individual gradually received greater recognition, and the competitive régime began.

The reader should note that all these changes in the industrial structure have taken place as the result of forces in society itself and that they were not planned in advance by any great leader or by any group of men. Unthinking men sometimes speak of the existing order as if it had been deliberately created by the rich and strong for their own benefit in order that they might take advantage of the weak and poor. This is an entirely baseless assumption. The world's rich and great men are no more responsible for the existence or continuance of the present order than are the poor and weak. They do not have under their control the forces which are, so to speak, the seeds or germs of the future. No man knows today how men will make their living one hundred years hence, what they will produce and consume, or how they will be organized and captained.

All social institutions are the products of an evolution, in the development of which most men are as unconscious of the part they play as is the ant in the building of an ant hill or the bee in the construction of a honey comb. The greatest force making for change or progress is not material and is in no way related to wealth. It is the brain of the thinker, the scientist, the philosopher. A new idea, or an old idea given new expression, is the kind of force, and the only kind, that causes new shape and form to be given to human institutions.

13. *Importance of economics to the business man.*—Physics is a science concerned with the laws governing the forces of nature. Engineering is a technical art aiming to utilize those forces to the advantage of

man. Men built bridges, towers and roads long before they had mastered the science of physics. They worked by what is known as the rule of thumb, guessing and experimenting until they arrived at a satisfactory method, but they never could have constructed the marvelous machines and towering structures of today. The modern engineer must know physics as well as mathematics.

In the same way, the science of economics is essential to the training of any man who wants to give his business talent the greatest possible opportunity for achievement. Business is the art whereby man produces wealth for the gratification of his wants; economics is the science which studies the laws and conditions under which wealth is and must be produced. A man unfamiliar with the principles of this science, unless he has most extraordinary ability, is at a disadvantage in modern competition and will have to be satisfied with small business affairs and small results.

Economics is primarily concerned with the values of things and services. It seeks to explain the causes of existing prices of goods and to discover the forces or conditions which indicate or precede an advance or decline of prices. In the same way it studies rent, the price paid for the use of land and buildings; wages, the price paid for human services; and interest, the price paid for the use of capital. Is it not evident that the business man who knows something about the laws that determine these various prices occupies a position of advantage over the ignorant man who works, as it were, in the dark? The one is like the trained chauffeur who knows his engine intimately, detects the first symptoms of trouble and makes real repairs in case of unavoidable accident; the other is like the unskilled driver who has learned by practice merely how to push buttons, press pedals and turn a wheel, but is stumped when his engine stalls.

14. *Perils of business.*—The business organism is much more complicated than the machinery of an automobile and is exposed to an almost infinite variety of perils and accidents. But these are nearly always preceded by symptoms which do not escape the eye and ear of the business man whose judgment has been sharpened by science as well as by experience.

Business is subject to recurring periods of activity and depression, of expanding and contracting credit, of active and depressed markets, of rising and falling prices. How important it is that the business man should recognize the signs that forerun a change from one period to another, for not otherwise can he protect himself against unexpected losses or prepare himself in time to take advantage of better conditions and make larger profits! There are quack advisers in business as there are quack doctors in medicine, and all these quacks seek the business man's patronage and money thru advertisements and circulars in which rhetoric gives to pseudo-science the luster of real gold. No quack will deceive a business man who has grasped the fundamentals of economics. He will weigh carefully the opinions and conclusions of others, but his final judgment will be his own, and with respect to his own business and its prospects will be nearer the truth than any opinion or judgment he could extract from an outsider.

Finally there is a national or patriotic reason why the business men of a country should understand the principles of economics. When it became evident that the United States would be drawn into the European war, Mr. Vanderlip, then President of the National City Bank of New York, while discussing his country's state of unpreparedness called it "a nation of economic illiterates."[1] He meant that the business men of the United States were, as a rule, untrained in the science of economics and were, therefore, carrying on their affairs in haphazard fashion, very much as men cultivated the soil a thousand years ago. No nation can make the most of its resources and natural advantages, no government can secure for its people the greatest possible welfare and happiness, unless its business men can wisely control, direct and stimulate the production of wealth.

REVIEW

How would you define economics? Show by an illustration why economics should be called a science.

Describe the views of the English classical school of economics. How do their methods and conclusions differ from those of the Austrian and historical schools?

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[1] Remarks at Annual Sales Convention of the Alexander Hamilton Institute, December, 1916.

What is to be understood by the statement that in the last analysis all income is psychical?

What does the business man understand by income? What is real income?

What advantages have followed the establishment of private property and what limitations have been placed upon it?

How does knowledge of economic principles prove useful to the business man?

CHAPTER II

FUNDAMENTAL CONCEPTS

1. *Utility.*—In economics the words utility and value are given an exact, definite meaning which must be clearly understood, since in everyday speech they are used in different senses.

Briefly, utility is want-satisfying power. Anything which men want is said to possess utility. If only one man desires it, then it possesses utility to him, but not to others. If a thing is intensely desired it is said to possess great utility; the less intense the desire, the less the utility. Potatoes, for example, are greatly desired for food and thus possess great utility. Diamonds are greatly desired because of their beauty and on that account possess utility.

Utility and usefulness are not synonyms. American Beauty roses can scarcely be said to be useful, yet they are greatly desired and therefore possess great utility. No one doubts that the potato is a useful vegetable. Yet a peck of comparatively useless diamonds could possess greater utility than several million bushels of potatoes, since men are willing to give much more for a single diamond than they are for many bushels of potatoes. The word usefulness implies the attainment of some practical and desired end. A crutch under the arm of a lame man is properly called useful; to him also it possesses utility. The slender canes which young men sometimes carry nobody would call useful, yet to the young man they may possess perhaps as much utility as the crutch does to the lame man.

Sometimes economists use the word to express the thing itself as well as its attribute. For example, if a thing possesses utility they sometimes speak of it as being a utility, by which they merely mean that it is something desired by man, something capable of gratifying a human want. It is well to note at the outset that the economist sometimes thinks of commodities as being a mass of utilities.

2. *Kind of utility.*—For convenience economists classify utilities in relation to time, form and place. Ice, for example, possesses greater value in summer than in winter. Hence we may say that an ice house serves to increase the time utility of ice. Cold storage houses preserve utilities from decay, besides keeping them until they possess greater time utility. Manufacturers in general increase the value of raw materials by increasing their form utility, wood being more valuable in the form of a chair than in the form of a board. Merchants of all classes increase the place utilities of the goods they handle, and hence are the joint producers of their value along with the farmers and manufacturers.

3. *Value.*—Some objects possessing utility are supplied by nature so generously that man has to make no

effort ordinarily to get all he wants. Air and water, except in cities, are utilities of this sort. So often in many country districts are apples and berries. Economists are not concerned about things of this kind. They are interested only in those articles which are not freely available for those who want them and for the production of which a certain amount of labor is necessary. Articles of this kind are said to possess value or exchange power because they combine utility and scarcity. Of course, utility is the first prerequisite of value, for nobody will give anything in exchange for what nobody wants. An article can possess value only on condition that it possesses utility and exists in a quantity insufficient to satisfy the desires of those who want it.

Value and income are probably the two most important words in political economy. Men toil in order that they may get things possessing value, for from the possession of such things they derive the psychic income or mental satisfaction which each regards as most desirable.

Popularly the word value is used in many different senses. Men speak of the value of a good name, for example. A business concern values its reputation and good will. A fine singer will think of his voice as having great value. If Paderewski thru the negligence of a corporation should lose one of his fingers a court would be called on to pass on its value, yet he could not sell one of his fingers. Most economists use the word in the sense of purchasing power, exchange power.

4. *Economic goods, or wealth.*—In order to escape from the confusion of thought into which the English classical economists fell thru the use of the word "wealth," modern economists employ it sparingly and use in its stead the phrase "economic goods," meaning thereby any commodity or material thing which possesses value. Desirable things that possess no value are called "free goods," because they are supplied by nature gratuitously. The great mass of goods which are bought and sold in the market are economic goods and these are the things in which the economist is especially interested. He wants to know why they differ in value, why they fluctuate in value, what are their costs of production, how they are marketed, and why they are wanted.

As I have said, in the English classical school of political economy all these economic goods were called wealth, that word being defined as including everything that has value or exchange power. But the word "wealth" is very broadly used in common speech, and hence the conclusions of the economists with regard to wealth are often misunderstood by the public. For example, Mr. Carnegie was known to be a man of great "wealth," owning as he did a large number of the bonds of the United States Steel Corporation. These bonds gave him a claim upon a certain portion of the earnings of the corporation, but they were not wealth in the economic sense. The economist would not call them economic goods. They are merely legal claims on the income produced by certain economic goods owned by the United States Steel Corporation. To be technically correct, these bonds should be called property, not wealth. In the same way a share of Pennsylvania Railroad stock is property, not wealth; it is the holder's legal evidence that he has an ownership interest in the railroad and is entitled to share in the distribution of its earnings.

5. *Welfare.*—Again the word wealth is often used as if it were related to, if not synonymous with, welfare. A man of wealth is often spoken of as "well-to-do," yet wealth and welfare are independent of each other. The word welfare implies happiness and contentment. Great wealth may bring neither of these to a man or to a nation. Indeed, it is quite possible that a social census, if one could be taken, would find more misery and discontent among the rich than among those people who are obliged to work every day for their living.

6. *The producer.*—The economist thinks of the human family as producers and consumers. All are consumers, for otherwise they would perish, and the vast majority of them are also producers, for by their daily labor they must earn their income. Since the problems of production and consumption are entirely different, the economist studies them separately, sometimes to such an extent that the unwary reader

gets an idea that in economics certain classes of society are consumers and others are almost exclusively producers. This is of course an erroneous conception. In a civilized country, like the United States or Canada, there are very few people who are not both producers and consumers. The so-called idle rich are numerically almost negligible. So are the other non-producing classes, such as the sick, the defectives, the aged and such criminals as are not given employment.

A producer is a person who creates utility or helps bring it into existence. The earliest producers known in the history of the human race were herders and farmers, and in the popular mind the farmer is still thought of as being the greatest of all producers, for he coaxes from the soil the grains and fruits and vegetables which support human life. He also supplies us with most of the meat we eat. The earth is, of course, the real producer. The farmer by his labor merely manipulates and directs natural forces. Economically he is in no greater degree a producer than the conductor of the freight train who hauls his crop to market, or any one of the wholesalers and retailers who pass it on to consumers.

Let us trace a bushel of wheat from Dakota until it appears in New York City in loaves of bread. The railroad hauls it to Minneapolis, where it possesses greater utility than in Dakota and therefore greater value, because the millers want it. The miller, who is a manufacturer, converts the wheat into flour, thus adding to its utility and value. The railroad hauls it to New York, where it possesses more utility than in Minneapolis, being more in demand. The baker turns it into bread, adding thereby both to its utility and value, for it is now in the form demanded by the so-called ultimate consumers. Some of the loaves may be sold to consumers by grocers who have, like the railroad, merely increased their place utility, for they have saved the consumer the labor of going to the more distant bakers.

7. *Intangible utilities.*—We have been considering thus far only the producers of tangible goods, that is, economic goods. How about the producers of intangible utility? Is there such a thing as an intangible utility, one not embodied in a material commodity? If not, we certainly cannot call lawyers, doctors, teachers, preachers, actors and artists producers unless we can show that their services are somehow helpful in the production of material goods. This can easily be done, as the reader will see later in this volume, in the case of bankers, teachers and physicians, and a pretty strong argument could be made in the preachers' favor, but we will not stop now to discuss this phase of the question.

From the economic point of view all these classes of men are producers of utility, for their services give positive satisfaction to the persons from whom they get their income. When you are sick the services of a physician possess greater utility to you than almost any material good. When you are well and have the means and necessary leisure, you may wish to hear an operatic star or see a noted actor. One artist thru the ear, the other thru the eye as well, appeals to your æsthetic sense and gives you greater satisfaction than you could possibly get from a farmer's potatoes and cabbages. To many devout people the services of the clergyman possess greater utility than the services of any other single class of workers; they would gladly turn farmers and produce their own food and clothing rather than see the church disappear.

We may sum up, then, as follows: In an economic sense every man or woman is a producer whose labor tends to the gratification of human wants or to the increase of utilities, whether thru a service which increases the supply of economic goods or thru a service which in itself gives pleasure to the consumer.

8. *The consumer.*—We consume a utility when we get pleasure or gratification from it. In many cases the consumption of a utility means the destruction of the commodity in which it is embodied. This is true of all kinds of food and beverages, as is illustrated in the old adage, "We cannot eat our cake and have it too." In the case of clothing the period of consumption is much longer, depending upon the habits and occupation of the wearer. Many people consume a straw hat in one summer, yet a certain city editor in Chicago was distinguished, among other things, because of his attachment to an old straw hat, which he wore for twenty summers and constantly in the office during the winter months.

A period of consumption is popularly known as the "life" of the commodity. In New York City, for instance, the life of a house is commonly estimated at twenty years, it being assumed that its utility in its existing form will disappear at the end of that period and that a new house will be wanted on the site. The life of a steel rail depends upon the amount of traffic hauled over it. The life of a book depends upon the care given it and the charm of its content. We consume an oil painting when we get pleasure from contemplating it. The life of the canvas depends upon the care given it. Marbles and bronzes, humanly speaking, last forever. They may be daily consumed but never destroyed.

9. *Exchange.*—No exposition is necessary to make the reader understand the necessity for the exchange of economic goods. Nothing in business is more obvious than the fact that few people produce the goods which they consume. At the present time nearly every man is a specialist. In the production of some articles the labor of thousands of men is employed; each receives his compensation in the form of money and then buys the articles which he desires to consume. Thus exchange has become the most conspicuous feature of our modern civilization. Nearly all producers expect to market their product.

10. *Barter.*—It is fair to assume that in prehistoric times, as is the case today in some savage tribes, there was little division of labor, each family being able to produce enough to satisfy its own needs. The first

exchange was doubtless in the form of barter, a fortunate fisherman being perhaps glad to give up part of his catch in return for berries and goat's milk. This exchange of goods for goods is known as barter and is obviously awkward and inconvenient.

11. *Money.*—Not until money appeared was it possible for men to specialize in their labor and to begin the development of an exchange civilization, each man devoting himself to the task which gave him the greatest pleasure or in which he was most proficient. Money is the medium which made this advance possible. It is a thing wanted not for itself but because with it one can buy what one wants. In a sense it may be called a third commodity, standing between the thing we have and wish to sell and the thing we wish to get in exchange.

Money may be defined as *an economic good which is universally desired in any community and which is universally acceptable as a means of payment for goods or services.*

12. *Credit.*—As modern business is conducted in most civilized countries, actual money is very little used. Men are satisfied to accept in lieu of it a mere promise to pay money. This promise is known as credit and it is founded on the rock of confidence.

If business men of the United States should lose confidence in one another, or in the government, or in the courts of law, the great credit system by which gigantic totals of wealth are daily exchanged would collapse, business would be at a standstill and great distress would ensue, the rich suffering as well as the poor. Just how money and credit do their work we shall discuss in later chapters.

13. *Price.*—The universal use of money and credit in modern business gives great importance to the word price. Popularly this word is confused with value. Yet they have different meanings. The price of a thing is the amount of money it exchanges for or that is asked for it. The price of wheat shows the value of a bushel of wheat with respect to money. It gives us no idea of the value of wheat unless we know the prices of many other articles and thus can make comparison.

14. *Distribution of income.*—A large part of economic discussion touches upon what is usually called "distribution of wealth," but that phrase is misleading, for the problem before us relates, not to the distribution of all the country's wealth, but solely to the distribution or sharing of the new wealth daily created.

Into a nation's markets there is constantly pouring a stream of new commodities and out of the proceeds of their sale various people who have aided in their production must get their compensation, the laborer his wage, the landlord his rent, the capitalist his interest, the business man or entrepreneur his profit. Roughly speaking the total of new wealth produced in the country in any year, sometimes called the national income, is divided among those four classes of society.

What determines the amount that each class shall get?

Does the landlord arbitrarily fix the rent which his tenants shall pay? Or is the amount determined by forces which the landlord cannot control?

Is the rate of wages fixed by the will of employers or by the insistent demands of trade unions or by forces beyond the immediate control of both employer and employe?

Why does the rate of interest on borrowed money fluctuate? Is it a product of unseen forces too powerful to be overcome by conventions and agreements?

Why do profits vary, some business men amassing fortunes while others go into bankruptcy?

Important questions of this sort are all related to the distribution of income and are treated in the chapters on Wages, Interest, Rent and Profits.

REVIEW

Show how the terms utility and usefulness differ. How do economists classify utilities?

Give some examples of the popular use of the term value. How does the economist understand the term?

Distinguish between free goods and economic goods.

How would you define a producer? Indicate some various classes of producers and the kind of goods they create.

Discuss what is meant by the consumption of a utility.

What is meant by the distribution of income and what classes share in it?

CHAPTER III

LAND AND CAPITAL

1. *Man and Nature.*—Man first began to rise above the level of the beasts of the fields and forests, and to be able to satisfy an increasing number of wants, by entering into a sort of business partnership with Nature. He doubtless first scratched the soil with sticks when he began in a primitive way to cultivate vegetables and cereals, and for many thousand years his partner, Nature, was so generous and rich in resources that she demanded no share of the product, but old plots of ground long cultivated grew stingy and refused to produce the expected crop. Then man discovered that the land must be fed and that if he buried in it the offal of the animals which he had tamed, or even the dead compost of a swamp, Nature was pleased and the soil gave forth its old yield.

This first partnership between man and Nature is still in existence, and in all civilized countries many scientific men are constantly at work upon plans and methods to make a more effective use of the resources of man's rich partner. The partnership is so important that governments maintain special departments whose sole function is the conservation and development of nature's resources, whether in lands, mines, rivers or forests.

The products supplied by nature are commonly known as raw materials, and with very few exceptions are not consumed by man until he has effected some change in them by cooking them with heat or by changing their form thru manufacture. Among our primitive ancestors there was undoubtedly a time when their total wealth, all the utilities in their possession, consisted of raw materials. Today, however, men have developed such a multiplicity of wants and such great ability to satisfy them, that raw materials constitute a relatively small part of the existing store of wealth of economic goods in any civilized country.

2. *Agriculture and the sciences.*—In the writings of economists land is given the broadest possible meaning. It is made to include not only the soil and its undetached products such as forests and growing crops, but also all of nature's productive forces and riches such as rivers, lakes and mines. In economics Niagara Falls, the river Thames and the beautiful lakes of the north of Italy are all classified under the head of land.

Soil varies much in fertility and different pieces of land are adapted to the production of different crops because of differences in their chemical elements. In the last fifty years increasing attention has been given to the study of the chemistry of the soil, and as a result the productivity of many different kinds of land has been greatly increased. The scientists at work in the agricultural colleges and laboratories of America and Europe deserve most of the credit for this progress.

Only in recent years has the physics of the soil begun to receive the attention it deserves. Most farmers in the middle of the nineteenth century supposed that the destruction of weeds was the main object of hoeing and cultivating a crop. Now it is known that cultivation of the soil has a second and in many regions an equally important purpose, namely, the creation on the surface of a mulch of dust to prevent evaporation of moisture. The so-called dry farming now practised in certain arid regions is only one of the contributions made by the science of physics to the art of agriculture.

The science of bacteriology is also helping the farmer in his struggle with the soil. It was discovered, for instance, that soils long cultivated often contain harmful bacteria injurious to the crop; also that certain varieties of clover contain bacteria which extract fertilizing nitrogen from the atmosphere.

These and other natural sciences have been very helpful, not only in agriculture, but also in all the industries which have for their end the utilization of nature's resources.

3. *Extractive industries.*—The economist views nature as a storehouse of potential wealth, and all industries aiming at the production or development of that wealth are called extractive industries. Farming, cattle raising, mining, forestry, floriculture, lumbering, fishing, horticulture, are some of the most important extractive industries.

The products of the extractive industries are the primary raw materials of the manufacturing industries.

4. *Climate and environment.*—It is a well-known fact that men are very much influenced by the climate and environment in which they live. Indeed, most writers upon racial development look upon the climate of a country as one of the most important factors in the development of a people's character. The rigorous climate of New England and parts of Canada, subjecting the people to great extremes of atmosphere, must, it is believed, tend to produce a hardy, vigorous, self-reliant people. A changeable climate with an uncertain rainfall and great variations in temperature is said by some scientists to account in part for the much discussed nervousness of Americans. The stolidity of the English is attributed to the equable climate. Buckle in his famous "History of Civilization," which was never completed, found in the differences of climate and physical environment the main causes of the development of races characterized by different qualities.

The subject is a most interesting one, but in a treatise on economics we cannot give it much consideration. It is sufficient to know that climate and environment are important factors in the production of wealth. Theoretically they are a part of the land and cannot be bought or sold by themselves. Only in a slight degree has man been able to modify or improve a climate, but his physical environment is somewhat under his control. Thus the introduction of artificial ice and the electric light have done much to make the lot of Europeans in the tropics more comfortable. The cultivation of forests in some regions tends to prevent the damaging floods of spring and the exhausting droughts of summer, and irrigation can be made to lessen the evils of an arid climate. That is why all governments have expended large sums for the production and conservation of forests and upon systems of irrigation.

It is comparatively recently that the conservation of natural resources has been recognized as a national duty in the United States. Appropriations for the improvement of rivers and harbors, not always judiciously expended, are of long standing; disbursements for these purposes in the five years ended June 30, 1920, amounted to over one hundred and seventy-five million dollars. The Fish Commission, later the Bureau of Fisheries, was established in 1871. Its annual disbursements are over one million dollars. The Bureau of Forestry spends over five million dollars annually, and the government devotes also something more than one million dollars each year to the acquisition of lands for the protection of watersheds of navigable streams. The reclamation projects of the United States Government will involve a total outlay of about $160,000,000 and will bring three and a third million acres under cultivation.

5. *Rent.*—The word rent is commonly applied to cover the payment made to the owner of land or of any economic good, except money, by some other man

who enjoys the use of it. In economics the rent of land is always spoken of as economic rent or pure rent, for it is generally held that the rent of land is subject to a law unlike that which governs the rent of buildings and other economic goods. This difference will be discussed later.

It should be noted that all improvements of land which increase its productivity become really a part of the land; for example, the fences on a farm, the ditches which drain its meadows, fertilizers placed in the soil, all these things become a part of the land in which they are embodied.

In the last analysis rent is the enjoyment that man gets out of any utility or human service, and by some economists the term is used in this broad sense. The wages of a farmer's hired man are said to be really the rent paid for his services and represent in the last analysis the satisfaction which the farmer gets out of a man's work. If a man works for himself he gets the rent or usufruct of his own labor.

In this book we shall not use rent in this broad sense but shall employ it in its common usage.

6. *Capital.*—Unaided by tools and machinery man could make very little use of the riches of nature. So out of the stick which first scratched the soil was finally evolved the idea of the spade, the hoe, the plow and the great mass of agricultural machinery in the invention and perfection of which the United States has led the world. In the processes of manufacture there has been the same evolution from the

sharpened stone to the steel knife and ax, from the simple hand tools of not many hundred years ago up to the intricate and almost automatic machines of the modern factory.

The reader should note that these tools and machines are not wanted in themselves; that they do not gratify any human sense; that they are wanted simply because they enable man to make more effective use of nature's resources and products. The farmer gets no pleasure out of a plow, but he does get satisfaction out of the knowledge that the thoro and deep turning of the soil is a step toward getting a good crop. The plow is merely an instrument of production. So are all tools and machines that play any part in the production of other goods. To the economist all such goods are known as production goods or capital.

7. *Capital and waiting.*—If we do a little clear thinking about the nature of the process by which our tools and machinery have been created, we shall discover that the men who made them were thinking especially about future needs or wants and were willing to wait for their compensation. While primitive man was sharpening a stone into an arrowhead or was making his first rough bow, he had to forego the pleasure of the hunt and of fishing and he must have fasted a bit unless he had previously accumulated a store of food. It is evident that while a man is engaged in the manufacture of a tool or machine he cannot be producing food, or making clothing for himself, or constructing or repairing his shelter. In order

that he may not suffer privation he must have food and clothing sufficient to last him thru the period of production and must have his house in fit condition for work. These things are essential to the creation of the tool or machine. Hence to the economist all the food and clothing and buildings in a country which are consumed in the production of wealth are capital.

The farmer who sows corn in the spring is planning for the autumn's crop. The seed corn is capital quite as much as the seeder which drops it in the row.

In general, economists define capital as *any form of wealth, land excepted, which is used in the production of other wealth.* All economic goods so used are called capital goods or production goods.

8. *Capital goods.*—In the production of most commodities the raw material is subject to several processes before a product is reached which is ready for final consumption. For example, the raw wheat becomes part of the miller's capital and is ground into flour; then it becomes part of the baker's capital and is made into bread; finally it becomes part of the retailer's capital and is ready for distribution to the consumer. In the form of bread the economist thinks of it as a consumable good.

No absolute and clear line of distinction can be drawn between production and consumption goods, for loaves of bread consumed by men for the continuance of productive effort are manifestly playing a part in the productive process. But this is a matter concerning which there need be no refinement of discussion. Under the head of a country's capital, economists usually include all its tools, machinery, shops and factories, stores and warehouses, all its harvested raw materials, its mined ores in the various stages of manufacture and the stored foodstuffs.

It would be idle to attempt to determine just what part of a country's wealth is capital and what is not. It is sufficient to know that the idea of capital implies an element of time, a period of waiting, a postponement of consumption, consideration of future wants rather than of present.

9. *The capital fund.*—Among business men capital is always thought of in terms of money and very seldom in the strictly economic sense. If you ask what capital a man had when he started in business you will be told, say, $10,000. If a man needs more capital, he thinks of the amount of money he wants and will seek to borrow it.

We cannot here explain the close relation between the supply of capital goods and loanable funds, but such a relation does exist, as will be explained in later chapters. It is enough here for the reader to see that money, aided by credit, is merely a medium of exchange by the use of which men are able to get the capital or economic goods which they need for productive purposes.

A manufacturer's real capital is not the money he had at the start, but the factory and machines for which the money was exchanged. Reference to the subject is made here simply to put the reader on his guard. Business men and bankers often use the terms capital, money and loanable funds as if they were exactly the same thing, and for practical business purposes they are.

10. *Capital and saving.*—Capital is the result of saving, and by saving is meant the production of more income than the producer consumes. It is evident that if a farmer consumes each year all that he produces he will not increase in wealth. If, however, he increases his effort to produce larger crops and practises economy, he may find in the fall that he has several hogs and steers more than he will need for the winter supply of food for his family. These hogs and steers constitute his savings. They are wealth, but he cannot save the wealth to advantage in that form. What he wants to save is not the hogs and steers but the value embodied in them, so he sells them for $500 and deposits the money in a bank. In the course of time the hogs and steers become the food of other people, but to the economist the important thing is that the farmer who produced them did not consume them, but instead saved their value and added it to the country's store of capital. The bank will seek to lend the $500 to some man who can use it profitably.

Without saving of the kind we have here illustrated there can be no increase in a country's capital or business. Saving is, therefore, a most important economic function; important to the individual, for if he does not save he makes no provision for sickness or old age and does not equip himself for the conduct of larger enterprises; important to society, for if a country's stock of capital does not increase there will be no expansion and no increase in the production of wealth unless men work harder and for longer hours. Any increase of the population in the country where the capital supply is not also increasing is almost certain to be attended by a lowering of the standard of living and by a decline of wages.

The economist believes quite properly that too much emphasis cannot be put upon saving or thrift. Its practice should be thought of not as a negative value to be stigmatized as meanness or stinginess, but as a positive virtue contributing to the welfare of society. A man helps increase the country's wealth quite as much when he saves as when he works.

How much any man shall save is a question each individual must decide for himself. Our incomes are produced for our enjoyment. We have numerous wants and we do not really live unless many of them are gratified. Thus the problem of saving is really part of the problem of living.

11. *Importance of capital.*—As we have said in the previous section, the enlargement of a country's industry or business is dependent upon the increase of its stock of capital, and in any country the capital of which is not increasing there can be no increase of population without severe suffering among the poor and the unskilled.

The truth of the foregoing propositions may be easily illustrated if you take the concrete case of a single farmer. If he has only one horse, one plow, one cultivator, one reaper and so on thru the list of farm implements, it is evident that he cannot employ to advantage more than one hired man, no matter how large his farm. If he has a tillable farm of 160 acres he will not be able to cultivate it all. His lack of capital will compel him to turn much of it into pasture.

If an entire community is made up of farmers of this sort and if all of them are equally poor and thriftless, producing barely enough to support themselves and their families, there will be no increase in the demand for labor in that community. But if gradually other farmers come in to buy these farms and, by using better methods of production, are able to get larger crops and, by the practice of economy in living, are able to have a surplus at the end of the season, before long some shrewd man will open a bank in that community and many of those farmers will be able to borrow even more money than they have saved and buy more implements, cultivate larger fields and hire more men.

What is true of this imaginary farming community is equally true of any industrial community. There cannot be more factories in the future and employment for more labor unless people today consume less than they produce and so create a capital fund. A shoemaker with only one bench and one set of tools cannot hire an assistant no matter how great the demand for his services. He must first save enough to buy another bench and set of tools or borrow from somebody else who has saved.

12. *Capital demands labor.*—As John Stuart Mill very clearly pointed out in his "Political Economy," the existence of unemployed capital is a prerequisite to any increase in a country's demand for labor. Mill stated this truth in what seemed a paradox as follows: "A demand for commodities is not a demand for labor." Inasmuch as the whole object of labor is to produce commodities for which there is a demand, this statement by Mill gave rise to much controversy and was quite commonly misunderstood.

He meant merely that there could be no demand for labor unless men had the capital necessary for the equipment of laborers with the needed tools and materials. The existing demand for commodities would surely determine the nature of the occupations in which the labor could be most profitably employed.

Evidently the demand for airplanes in the war could not have brought about a demand for labor for their manufacture unless the necessary capital had been obtained by the different governments, and it is quite possible that this demand for airplanes, toward the construction of which the United States Congress appropriated vast sums of money during the war, did not increase the total demand for labor, but merely diverted the demand from other occupations to that of building airplanes.

13. *Fixed and circulating capital.*—When capital

goods are in such form that they can be utilized for the production of any of the goods for which they are adapted, they are called free or circulating capital. Capital of this sort disappears when consumed, but reappears in the form of another commodity.

When, however, a capital good is given a permanent form it is called fixed capital.

For example, iron ore is free or circulating capital. It can be first converted into steel and then into a great variety of articles, such as rails, steamships, nails, hammers, axes, saws, when it becomes fixed capital. Lumber fresh from a sawmill is circulating capital; in the form of a house it is fixed capital.

The distinction is mainly one of degree, but is nevertheless important. A country's ability to carry thru new enterprises depends much upon the amount of circulating capital in its possession. If a large part of its capital is fixed, it cannot always be utilized to advantage. Fixed capital is always liable to be rendered worthless by progress, by new inventions, by changes in the market demand, etc. The automobile largely displaced the bicycle, and bicycle factories were at a considerable expense fitted up to manufacture automobiles. The great war in Europe, bringing to the United States an immense demand for munitions, caused many factories and ships to be refitted, the old equipment being discarded. All this could not have been done by the owners had not the Allies been willing to supply the capital by paying prices which yielded much more than an ordinary profit.

The money or credit in banks is commonly referred to as circulating or liquid capital. When a depositor withdraws his balance and buys the stocks and bonds of a corporation, he is said to invest it; in reality he has turned it into fixed capital.

The change of capital into a fixed form is always attended with the risk that the market demand for capital in that form may change and that the investment therefore will not yield the expected return.

14. *Interest, the return on capital.*—The rate of interest is commonly thought of as being a certain percentage of money paid for the use of money, and since money itself is not a productive agent, people of the olden times thought the money lender not deserving of compensation. Some people even today hold this view and call interest usury, altho this term usury can properly be applied only to an excessive rate of interest.

The fact is, money in itself does not earn the interest which is paid to its lender. The borrower simply converts the money into capital goods and by their use, with the aid of labor, increases his income much more rapidly than he could without them.

The transaction would be plain enough if no money were used. Suppose you own a ferry boat and are making a fairly good living by its operation. But you are getting old and want to rest. So you lease your boat to some man who offers a satisfactory rental. Nobody would expect you to let him have the use of it for nothing. The boat is part of your wealth and it will not last forever. You will, therefore, want a rental large enough to serve two purposes, first to give you a fair return on the value of the boat, say six per cent of its value, and second to recompense you for its deterioration thru use. If the "life" of the boat is only twenty years, the payment on account of the second purpose should be at least five per cent of the value of the boat. The payment on this second account in the language of economics is for replacement or reproduction of the capital. Accountants designate it as a payment for depreciation.

15. *Capital consumed.*—It should be noted that all capital is consumed. As has already been pointed out, in varying periods of time, capital is destroyed when used and the product of its use must be sufficient to compensate the owner for having saved and also to replace it.

16. *Wealth as capital.*—If we were to be absolutely exact in the use of terms, we should have to admit that all wealth is capital, for as we have seen all economic goods are productive of psychic income. A piano, the golf links, the automobile, diamonds, fine raiment, cigars, luxuries of all kinds—all things of this sort give pleasure and satisfaction to many people, that is, they yield a psychic income, and in the last analysis are economically as productive of income as the Baldwin Locomotive Works or the United States Steel Corporation. Yet the psychic income produced by so-called consumable goods is

not transferable or exchangeable, cannot be bought or sold, and therefore does not play any direct part in the field of business. Hence economists, with a few exceptions, have attempted no refinement in their definition of capital, but have applied it only to those material goods which aid in the production of additional economic goods or wealth.

REVIEW

What does the economist mean by land; by extractive industries?

Define rent: (a) as usually applied; (b) as understood in an economic sense.

Discuss the evolution of capital. Define capital. What would you include under it?

What is the capital fund as understood by the business man?

Explain the fundamental importance of capital to a nation. Distinguish between a demand for commodities and a demand for labor.

State the difference between fixed and circulating capital; usury and interest.

CHAPTER IV

LABOR AND ENTERPRISE

1. *Labor.*—Labor includes all human effort having for its end or aim the gratification of wants or the production of income. Using the term in its broadest sense, we might say that there is not an idler on the earth, for all persons are seeking in one way or another to get some satisfaction out of life. But in the business or economic sense there is a sharp distinction between those who work and those who loaf and play. The workers are those who are helping either to increase our store of tangible economic goods, commonly known as commodities, or to render some personal service to others in return for compensation.

The economist is especially interested in the problems connected with the labor of those people who are engaged, whether directly or indirectly, in the production of commodities. These workers are parts of the great industrial machine and may be roughly divided into two classes, skilled and unskilled laborers.

2. *Skilled and unskilled laborers.*—A skilled laborer is one who has learned thru training and practice to perform certain tasks with unusual aptitude. He is in a sense a specialist, and the degree of his skill, his rank among skilled laborers, depends

upon his use of brain power and the fineness of his senses. A man of sluggish intellect and dull senses might become what the New Englanders call a barn carpenter, but he never could learn to build a fine house and certainly could not become a cabinet maker, for he would lack judgment in the selection of materials and tools and his dull senses would be satisfied with imperfect joints and mortises. Thru inheritance men receive different endowments from nature. Some easily become skilled laborers of a very high class, while others seem doomed to remain thru life in the lowest ranks.

The unskilled laborer is one who performs tasks requiring the minimum of mental effort. Physical strength is his chief asset. He digs, shovels, hoes, lifts, fetches and carries, but he is not paid to think.

Economics is specially concerned with the forces and conditions that determine the wages of both skilled and unskilled labor. The labor problem is recognized as the most important and the most difficult in the whole field of economics. What is a living wage or a fair wage? Why are the wages of some classes of workmen, even those who possess some skill, so low that the workers' families cannot be properly fed and housed? What steps should be taken in order that labor may get a better wage? In the long run what is the effect of strikes and lockouts, of trade unions, of war, of high living upon the welfare of the laboring classes? Economists must find answers to questions of this sort.

3. *Division of labor.*—Since men and women are differently endowed, they naturally seek the kind of employment for which they are best fitted, or which they like best, or which seems to them the least irksome. As a result and because of the development of elaborate exchange and transportation facilities, modern business and industry are most highly specialized; every great industry has been subdivided into numerous groups and these again into minor subdivisions. Experience has taught men that greater efficiency results if a workman can concentrate upon a single task or if an entire factory can be devoted to the manufacture of a single simple product. The parts of many complicated machines are now manufactured in different shops and then assembled to create the finished product.

4. *Advantages of division of labor.*—Division of labor is one of the most conspicuous facts of modern industry and business. It has many advantages. It enables a workman to become more adept and so improves the product and shortens the time of production. It lowers the cost of production, for it increases the output per man and so brings into existence a larger supply of economic goods than would be produced if workers were employed at different tasks on the same day. The main reason why specialization of industry has proceeded so rapidly in modern times is because of the reduction in costs which resulted.

Division of labor has made possible a fuller development of the natural resources of different localities. From a social point of view this localization of industry is exceedingly important. A locality is looked upon as one of specialized industry when in the course of time it has demonstrated clearly its advantages over other districts. New England has long been the center of the textile industry of the United States, tho its prestige has been somewhat affected by the rise of the Southern cotton mills, which have the advantages of nearness to raw material, fuel and cheap labor. But on the other hand, the New England mills possess water-power and proximity to markets.

Another instance of localization of industry is the gathering of flour mills about St. Anthony Falls at Minneapolis. The original reason for their location at that point was the accessibility of water-power and the nearness to a hard-wheat supply. The milling business at Minneapolis has reached such proportions that the waterfalls are no longer adequate for motive power, and of the original advantages of location the nearness to the wheat supply alone remains. New advantages, however, have appeared in the form of a well-trained labor group, together with the necessary commercial and shipping facilities for the handling of the product.

5. *Disadvantages of division of labor.*—While the division of labor increases the workers' efficiency and tends to the enlargement of a nation's wealth, nevertheless from the workers' point of view it possesses some disadvantages and may be carried to a point that

is harmful to society as a whole. The work of many becomes monotonous and wearisome. It is a well-known psychological fact that the incessant employment of the senses and muscles in the same way, even tho pleasurable in the beginning, finally becomes most distasteful if not painful. Two carpenters building a house will do all kinds of tasks during the day—sawing, measuring, fitting, leveling. They will get more satisfaction out of their work and will be less weary at night than if they are part of a gang of twenty men hired to build a house quickly, three or four working constantly with the saw, a few measuring and marking the lumber, some laying the foundation, others digging the cellar, one group putting the parts together with nail and hammer, and the remainder shingling the roof.

Furthermore the division of labor naturally tends to the narrowing of a man. The all-round cobbler who can make as well as repair shoes has almost disappeared. So has the old-fashioned Yankee farmer who could make shoes for himself and harness and shoes for his horse, could build his own barn or house, or make a wagon and a sled. In the country districts we still find men who know something about many trades and who can make themselves very useful in different occupations, but in the cities and towns workers are becoming more and more specialists and more and more ignorant about other callings. If an inventor makes a machine that can do their work more quickly or rapidly, they are helpless. When the typesetting machine came into use thousands of printers in the United States lost their jobs and would have suffered much greater distress than they did had not the stereotyping process been invented. By lowering the costs of publication it led to a great increase in the number of country dailies and weeklies, causing a migration of printers from the great cities into the rural districts.

The undoubted disadvantages of division of labor to the working man are offset in part, if not wholly, by higher wages and shorter hours. If his work is as a whole less agreeable, he has more time to play, more time for his family, more time for self-improvement if he is so disposed.

6. *The enterpriser or entrepreneur.*—The fourth and final factor in the production of wealth is the brain power or business ability which directs the labor in its utilization of land and capital, and assumes all responsibility for the payment of wages, rent and interest. When this ability is embodied in a single individual he is called by economists the entrepreneur or enterpriser. Entrepreneur is the French word for undertaker, but in English this term is commonly applied to a single occupation.

The manager or entrepreneur is the most important individual in the business world. If he blunders, capital is wasted and the demand for labor is weakened. In so far as the entrepreneurs or business managers of a country are wise, farseeing, energetic and courageous, its industries and business prosper, abundant opportunities are opened up for labor and wages tend to rise. The problems of management call for the highest kind of trained ability and it augurs well for the future business and industrial prosperity of the United States that larger numbers of college men are choosing business careers, and that universities in their schools of commerce are doing their best to give young men special and thoro training for the work of the business executive or manager.

7. *Profit.*—The entrepreneur is the only factor of production whose compensation is not fixed in advance. He is the only productive agent who runs the risk of receiving no compensation whatever for his work. He takes what is known as a business chance, and if he is not an efficient manager of men, a shrewd buyer of materials and a master salesman, the chances are that his enterprise will be a failure. His problem is to sell his product at a price in excess of its cost. This excess over cost constitutes the entrepreneur's reward. It is known as profit.

Every man engaged in the production of wealth is an entrepreneur in so far as he assumes risks. The farmer, tho not known as a business man, is an entrepreneur, for he hires help, is exposed to the risks of the variable seasons and may be compelled to sell his crops at prices which yield him no net return. The owner of a small grocery, cigar store, newsstand, small bakery, or candy shop, is in a small way an entrepreneur. He assumes a business risk and does not know what his compensation will be.

Since the entrepreneur is the manager of a business, his compensation is sometimes called by economists the wages of management, but profit is the better word. Some economists hold that the owner of a business, if he gives all his time to it, should pay himself a salary and count as profit only what then remains of the surplus earnings of his business. In the case of an individual or a partnership this might be called net profit to distinguish it from the gross profit. A man should credit to himself a salary no larger than he could earn if he worked for someone else.

8. *Corporation profits.*—The great mass of business and industry at the present time is conducted by partnerships and corporations. In a partnership two or more persons are entrepreneurs and they assume the risk jointly. In a corporation, shareholders are the risk takers and to a certain extent are therefore entrepreneurs. But they delegate the management of the corporation to a board of directors, who are expected to shape the policy of the corporation and to hire competent managers or executives.

These executives, altho they do not always risk their own capital and are paid salaries fixed in advance, are in a position very much like that of the individual entrepreneur. It is their business to make the corporation earn the largest possible profit. On their so doing hangs their hope of larger salaries.

If they fail to produce a profit, they lose their jobs.

Any employe of a corporation carries on his shoulders the responsibility of an entrepreneur in so far as the authority delegated to him by the board of directors enables him by the exercise of his judgment to increase the profits of the corporation or to prevent losses.

9. *Cost of production.*—In the preceding paragraphs we have used the phrase, cost of production. Let us here get an idea of exactly what it means.

The cost of production of any article is the sum total of all labor and capital goods used up in its production. Suppose a man makes a box in an hour, using 100 feet of pine boards and a pound of nails. The cost of production is represented by one hour's labor, the nails and the boards. But the nails and the boards are themselves products of labor and of capital goods. Hence could we go far enough back in the history of production we might find that the chief and almost exclusive source of the cost of any article was the labor embodied in it.

But in the modern world we are not dealing with primitive conditions. In modern production labor is the chief, but not the sole element of cost. No matter how simple the operation there is always some capital employed, the use of which must be remunerated.

In 1914, 59.3 per cent of the expenses of manufacturing reported by the census went into materials and fuel, and 22.9 per cent into labor. The share assigned to labor varied greatly in different industries. While it was 43.8 per cent in marble and stone work, it was 4.7 per cent in flour mills and grist mills.

The fact, however, that in an ultimate analysis a large part of the cost of all articles is reducible to past and present labor has been made the basis of much fallacious reasoning with regard to the nature of value, the ownership of capital goods, and the rights of present-day workers.

10. *Rent of buildings and land.*—Buildings which are used for productive purposes represent an outlay of capital, and interest on this capital outlay should be included in the cost of the goods produced. Whether the outlay is that of the user of the building who expects interest on his investment or whether the user of the building avails himself of the outlay of another by paying the latter rent for the use of the building is immaterial. It is however clear that the rent of buildings is always a component of the cost of production.

Nothing has thus far been said about the rent of the land upon which the buildings stand. While the rent of land and that of buildings do not form separate contracts in business life the economist distinguishes sharply between them. He does so because he believes that they are governed by different laws. This matter is fully explained in a subsequent chapter on rent and cannot detain us at this point. It is enough to note here that economists believe that from the standpoint of society at large, tho the individual producer thinks otherwise, the rent of land does not affect price. The grounds for this belief will appear clearly in the later discussion.

11. *Expenses of production.*—In the business world men always think of the cost of production in terms of money. In figuring their costs they simply add up the sums of money paid out for the hire of labor, for the purchase of raw materials, for insurance, for rent, etc., and a certain percentage of the cost of their plant or fixtures to cover depreciation.[1] In this way the business man gets the sum total of his money outlay and does not seek to know more. He is anxious of course to have his workmen and his machines produce as many goods every day as possible, and for that reason in many industries manufacturers keep a careful record of the time required for various productive processes. But in their final computation of costs all the labor and capital consumed or employed are reduced to terms of money.

As we shall see later, money does not possess stability of value. It fluctuates in value just as does wheat or corn or any other commodity, altho for reasons which we cannot discuss here its fluctuations are less rapid and violent. But its value does fluctuate, that is to say, its general purchasing power varies.

Thus in the United States prices began to rise in 1897 and doubled by 1916, when a more rapid advance took place, culminating in 1920 with prices nearly double those of 1916. This means that the purchasing power or the value of the dollar was greatly diminished since it required four of them in 1920 to buy the goods which one would have purchased in 1897. The reader will easily see that the money costs of producing an article must have risen during this period even tho its production called for the employment of no more labor and no more capital, that is to say, even tho its real cost had not changed.

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[1] The method of ascertaining costs is treated in detail in the Modern Business Text on "Cost Finding."

Because of this instability in the value of money, economists as a rule designate money costs of production as the expenses of production. This seems to be necessary in order to avoid confusion of thought. The business man year by year is interested in his money costs of production, for upon them and upon the market prices depend his money profits. The economist is interested in the same matter, but he is perhaps more deeply concerned about real costs of production, for their reduction is one sign of economic progress and he knows that the real costs of production may be declining during a period when money costs are advancing. For example, because freight rates have been advanced in recent years the average man thinks of the costs of transportation as being higher. Yet the real cost of moving a ton of freight one hundred miles is probably considerably less today than it was twenty years ago, for labor has not lost in efficiency while the capital goods employed in transportation, such as locomotives, railroad tracks, coupling and signaling devices, terminal and unloading facilities, have been considerably improved. When an economist says that the cost of transportation has declined he means that it involves the employment of less labor and the use and destruction of less capital. This is sometimes spoken of as the real cost opposed to the money cost.

12. *Competition.*—In civilized countries today both the production and consumption of wealth proceed in the main under conditions of competition, each individual being permitted under the law to produce and consume as he will. The great economist, Adam Smith, was the first to point out the advantages of competition as compared with governmental control and regulation of industry. The essence of his argument in behalf of free trade as opposed to protection lies in the advantages of international competition. All trades and callings should be freely open to all the people of a nation in order that each may choose the one for which he is best fitted. Then the wealth of the nation will increase at the highest possible rate, for the men best fitted for leadership will get to the top and direct the great machinery of production. Governments should not interfere as they do when they enact protective tariffs, for then they compel a nation to devote part of its capital and labor to the production of things which it might get more cheaply from abroad.

Competition is nature's method. Blades of grass in a field are competitors of one another for food. In the dead saplings of a forest you see a relic of the fierce struggle in which the trees have engaged to maintain life and growth. All wild animals compete fiercely with one another for the available food supply. The well-known result of all this competition in vegetable and animal life is a survival of the fittest and the ultimate destruction of the unfit. Competition among men has the same result and to many, therefore, seems cruel, ruthless and irrational. Can we retain the advantages of competition and gradually eliminate the evils? Shall society abandon the competitive régime and adopt some other method of consumption and production, or would it be wiser by means of education, training, to lessen the number of the unfit and seek thru legislation to give them greater security of occupation and income? These are questions on reform for the solution of which an understanding of economics is absolutely essential.

13. *Monopoly.*—Unrestricted competition logically tends toward monopoly. The fact that in any industry the strongest survive leads to the inevitable conclusion that the industry will finally be controlled by the one strongest man or strongest group of men. Such has been the actual course of events in nearly all countries during the last one hundred years. Especially since 1880 in all civilized countries there has been a fuller realization of the advantages of large-scale production and of large combinations of capital, and as a result there has been a lessening of competitive opportunity in many industries. The fear of monopoly and a desire to keep competition open, free and fair have led to the enactment of many laws in different countries, all having for their aim the pro-

tection of the weak from exploitation by the strong. The trust problem of the United States is to be found in one form or another in every civilized country. What people really fear and seek to destroy is monopoly which is the opposite of competition. A monopoly has the power to regulate the supply of the article it produces and is therefore in some measure able to regulate the price which it may exact from the consumer. Under the common law of Anglo-Saxon peoples any attempt to create a monopoly or to lessen the possibility of competition in an industry is illegal. In the United States and Canada special legislation has been enacted for the suppression of monopoly. This is an important subject and is fully treated in the Modern Business Text on "Business and the Government."

A monopoly exists whenever a single man or a group of men acting in concert are able to regulate the production of an article to such a degree that they are in some measure able to control the price. If a monopoly's control of production is due to its ownership of certain natural resources, it is called a natural monopoly; if due to its possession of certain legal privileges or to a patent it is known as a legal monopoly. A street railway with an exclusive franchise for operation of certain streets may be regarded as both a natural and legal monopoly. So may a telephone company if its charter or franchise excludes competition. If a corporation obtains virtual monopoly thru its command of large capital it is often spoken of as a capitalistic monopoly, altho commonly called a trust.

Only occasionally does a monopoly have absolute control. More often it has only a partial control, because in most instances there can be some substitute for the article which a monopoly owns. This question of control depends, however, upon the supply, whether it is increased with difficulty or with ease. The area of a monopoly may be local, national or international.

14. *Forms of organization.*—Every enterprise has four phases, namely, production, accounting, selling and financing. In small businesses all four of these phases are frequently looked after by a single man, but the use of steam and electricity, making possible great improvements in the means of transportation and communication, brought about the development of industries requiring capital and resources beyond the means of a single individual. As a result men have combined their resources and abilities in various ways; first, in a partnership, then in a joint stock company, later in a corporation and finally in the great industrial combination known in the United States as the trust. The great advantage of the corporation under the laws of the United States is the limited liability of the stockholders. In America the principle of limited liability was developed early, for capital needed encouragement. As far back as 1835 charters were granted to corporations in the United States in which the liability of a shareholder was expressly

limited. In England the principle was not taken up as quickly. Even the English railway charters prior to 1879 contain no mention of limited liability. On the continent of Europe, the liability of a shareholder of a corporation is usually limited. These various forms of organization constitute the subject matter of the Modern Business Text on "Business Organization."

REVIEW

What is division of labor? Give its advantages and its disadvantages.

What is an entrepreneur and why is he so important in the business world? How is his compensation determined?

How do the stockholders of a corporation differ essentially from partners in a company? How does a manager employed by a board of directors resemble an entrepreneur?

What is meant by the cost of production? Why is land rent not included in this cost?

In considering the costs of production how does the business man differ from the economist? In what costs is each one interested? Illustrate.

What are the advantages of competition as set forth by Adam Smith?

What determines a monopoly? What is a natural monopoly?

CHAPTER V

THREE FUNDAMENTAL LAWS

1. *Human wants.*—Two characteristics of human wants possess great importance in their bearing upon the production and consumption of wealth.

First, there seems to be no limit to the number of wants of which a human being is capable. This is one reason why most people find saving so difficult; any growth of income is speedily outdistanced by the growth of wants. This characteristic also explains why a general overproduction of wealth is impossible; there may be too much of one thing but not too much of all things. It also accounts for the almost infinite variety of goods found in the markets of any modern city.

Second, the continued gratification of any single want finally leads to satiety and may become even tedious and irksome. It is a well-known fact of everyday life that any pleasure loses its zest if indulged in too long.

2. *Law of diminishing utility.*—The fact that we get less and less satisfaction out of the continued gratification of any single want is so important that it is laid down as a fundamental proposition and is known as the law of diminishing utility. It may be stated as follows: The intensity of any utility, or of

a man's desire for any good, tends to decline as he consumes successive units of it.

This law doubtless has both a physiological and a psychological basis. Sports weary certain muscles and finally cease to give pleasure. The hungry man gets great satisfaction out of the first few minutes of his dinner, but his enjoyment of the meal soon begins to decline. A man who is already the owner of a silk hat, is not profusely grateful if a friend sends him a second silk hat as a Christmas gift, and if he gets a third on his next birthday he will probably look at it gloomily and wonder if he has some friend or relative whose head it will fit, for to him it is only a nuisance.

This principle of diminishing utility applies with varying force in the case of different articles and different men. In the case of the silk hat, the utility declines very rapidly as the supply is increased. In the case of shirts the decline will be much less rapid. To the man who has only one shirt it will possess very great utility; he will prize it much more than he would any one shirt if he had twelve in his bureau drawer. It may be said that up to a certain point there is possible an increase in the supply of any commodity in our possession without any appreciable decline in its utility. We want a certain number of suits of clothes and a house with a certain number of rooms. Additional clothing and additional space in our house would be only a burden, something to be cared for but not wanted.

Bread, potatoes and beans are nourishing. Potatoes and beans in ordinary times are cheap. If the human race would be satisfied with such food, the population of the earth might be doubled and yet all be well fed; but we demand variety in food and would protest vigorously if the same rations were placed before us day after day.

3. *The law of demand and supply.*—Every business man knows that the value or price of any article depends upon the demand for and supply of it. The law of demand and supply may be briefly stated as follows: The price or value of any article tends to vary directly with the demand and inversely with the supply; increasing or declining as the demand increases or declines, but tending to rise as the supply declines and to fall as the supply increases.

The reader must not think of this law as a complete explanation of value. It is not in any sense a theory of value. It merely states in general terms a truth well known to all men familiar with the operations of trade and industry.

If we analyze this law we run up against some difficult questions. What is meant by demand? Why does the value rise when the demand increases? Why does the value tend to fall when the supply increases? We find also that there is a curious interaction between value on the one hand and demand and supply on the other. If the price of an article is lowered, we discover that the demand for it tends to increase and that at the same time the supply tends to decrease. We will not undertake to discuss all these problems in this chapter, but will be satisfied with an examination of the terms demand and supply.

4. *Analysis of demand.*—The desire for a commodity is not in itself an economic demand for it. No matter how much a man may want an automobile, his desire can have no effect upon the prices or value of automobiles unless he has the necessary means of payment. Desire must be accompanied by the necessary purchasing power before it can become economic or effective demand, or have any influence in the market.

The second point to notice in connection with demand is that it varies with the price. For example, if the price of automobiles and the cost of operation could be cut one-half, there would undoubtedly be a great increase in the demand for automobiles and many more cars would be made and sold. On the other hand, if any conditions cause the prices of automobiles and gasoline to be advanced, the tendency will be toward a weaker demand and smaller sales. Hence when we speak of the demand for any article, manifestly we must always have in mind a certain price, for the demand varies with the price.

There is only one way of measuring the demand for an article at any given price, and that is by the quantity of it which is sold at that price. That shows how many people are willing to buy at such a price.

Hence it is possible for us to define demand as being the amount of goods which people are willing to take at a given price.

5. *Analysis of supply.*—The word supply as commonly used includes the entire stock of goods within reach of the market, but economists use it in a stricter sense, meaning by it only that portion of the entire stock which is actually offered for sale at a given price. The entire stock of wheat, for example, in a country might be 500,000 bushels and the price $2. If only 100,000 bushels were offered for sale, that would be the economic or effective supply at that price, and if 100,000 bushels were sold at that price, that would constitute also the economic demand.

Thus in our analysis of demand and supply, we find that at any particular time and price they are measured by the same quantity of goods.

This conclusion is not remarkable, for a man's purchasing power depends upon the goods he possesses, plus his credit or borrowing power which in turn depends on his power to produce in the future. How he shall use it is determined by his wants. A farmer going to market with 10 bushels of potatoes, intending to sell them and purchase groceries with the proceeds, is increasing the supply of potatoes in the market and the demand for certain groceries. To the buyers of potatoes his load constitutes an addition to the supply, but to the grocer it represents a demand for certain groceries. Money is merely the medium by which the exchanges are effected; the economic demand for goods is the goods that are in the buyer's possession. In modern business the buyer always goes to market equipped with money or credit, and this he has obtained either by the production of goods or by the performance of valuable services.

6. *Potential demand and supply.*—That part of the stock of an article which is not offered for sale at a given price is sometimes called the potential supply. When would-be buyers of an article are not quite satisfied with the present price and hold back for a lower price, this is referred to as the potential demand. Dealers in any article when determining what price they may hope for naturally take into account, as far as possible, the intensity of the potential demand and the amount of the potential supply.

The great enlargement of cold storage and warehousing facilities in recent years has made the potential supply of many commodities exceedingly important. The thrifty farmer is no longer compelled to market all his eggs in the spring and summer, nor all his potatoes and grain crops in the fall. In normal times this withholding of foodstuffs from the market, so that they are not part of the effective supply, tends, first toward the steadying of prices and, second toward the lowering of prices, for the farmer, his profits being larger and more secure, is stimulated to an increase of production.

In this book we shall use the words demand and supply in the sense given them ordinarily by business men, meaning by supply the goods in the market seeking a purchaser, and by demand the quantity of goods which people will buy at or near any given price.

7. *The value equation.*—Any business man knows that the price or value of an article tends to rise whenever the demand for it at the existing price is in excess of the supply offered for sale at that price; and conversely that the price of an article is likely to decline whenever the supply offered at the existing price is greater than the demand. It is conditions of this sort which account for the zigzagging of prices in the speculative markets. In the world's great exchanges, where the prices of certain basic commodities are fixed, the traders give consideration to all possible circumstances that may affect the present or future demand or supply of the article in which they are trading. A drought in Argentina may foreshadow a lessened supply of wheat and cause traders to bid a higher price for it, or storms in Kansas and Nebraska may threaten the corn crop and bring on a rise in the price both of corn and of pork.

At any given time there are in any market a number of men more or less anxious to buy a certain commodity and others who wish to sell. If the sellers are asking too high a price, certain buyers hold off and all the stock cannot be sold. On the other hand, if they should offer their goods at too low a price, the demand would exceed the supply, certain buyers would get all they wanted and others would be disappointed.

Assuming that the buyers and sellers are all keenly competing with one another, each anxious to get all possible advantage out of the market, it is evident that the sellers, even tho they enter into no agreement with one another, will endeavor to put the price at the highest possible figure at which all their supply can be sold. So we may say in general that value or price is such a ratio of exchange as tends to establish an equation between demand and supply. The reader will not understand this definition unless he gives careful consideration to the fact that changes in the price or value of a commodity tend to cause changes in the demand and supply. In the chapter on Value we shall discuss this subject from other points of view.

8. *Agricultural law of diminishing returns.*—One of the most important laws in economics was borrowed from the science of agriculture and is known as the law of diminishing returns. Most economists have treated it mainly with reference to its bearing upon the profits of agriculture, but it applies also to other industries.

The law as it applies to land may be stated as follows: In the cultivation of a piece of land, after a certain point is reached the application of additional labor and capital fails to cause a proportionate increase in the yield.

This law states a truth that the experience of every farmer confirms. On a given field a farmer knows how many loads of fertilizer and how many men can be employed to the greatest advantage. He knows that if he puts on additional loads of fertilizer or employs an additional man in the cultivation of the field, altho the total yield may be increased, the return per unit of capital and labor will be less. Suppose that the land when cultivated by two men and enriched by ten loads of fertilizer yields 1,000 bushels of wheat. The next season let him increase the use of capital and labor by 50 per cent, that is, apply 15 loads of fertilizer and keep three men at work in the field. If he obtains less than 1,500 bushels of wheat it is manifest that the point of diminishing returns has been reached and that his wheat costs him more per bushel the second year than in the first.

This law is important because of its bearing upon the cost of production. As population increases farmers must do one of two things: (1) They must bring poorer or more distant lands into cultivation; (2) the land already tilled must be cultivated more intensively, by which is meant that more labor and capital must be applied. The result in either case is the same, namely, higher costs of production together with higher prices of foodstuffs in the markets.

The law is manifestly applicable not only to agriculture, but to all extractive industries, such as mining and lumbering. As the demand for ores and lumber increases, mines must be worked to greater depths and lumber must be brought from forests more remote, all of which means higher costs of production and a tendency toward higher prices.

9. *General law of diminishing returns.*—The law is applicable to all forms of industry and may be stated as follows: In the development of any industry there is a point at which the returns upon capital and labor invested are at a maximum; after this point is reached, the application of further labor and capital does not cause a proportionate increase in the value of the return.

Note the difference between the agricultural law and this more general law. In agriculture there is a decline of product per unit of capital and labor; in industry in general there is a decline, not necessarily of product, but in the value of the product. This difference is due to the fact that the supply of land is limited, whereas in industry the number of factories may be indefinitely increased.

If we consider the producing power of a single factory, the law applies to it exactly as to a piece of land. In a given building only a certain number of machines and men can be employed to the greatest advantage. If more are introduced, the output per man and machine declines, altho the total product may be increased. Hence it follows that in industry in general, after a certain point of development has been reached, more men and capital cannot be employed without a certain decline in the output per capital and per man unless additional space for their employment has been provided. Since additional space for manufacturing industries can easily be found, an increasing demand for manufactured articles does not always lead to higher costs of production and higher prices. On the contrary, it often lowers costs because of the economies made possible by large-scale production.

But in any industry, if the demand for its product remain unchanged, then after a certain period in its development has been reached the employment of additional men and machines will not yield a proportionate increase in the value of the product, for the supply of the product on the market would be increased and the value would tend downward as a result. At any given time in any country only a definite number of men and a definite amount of capital can be employed to the greatest advantage in any industry.

Take shoes, for instance. The manufacturer must take into account the cost of leather and other materials, the wages of labor, the cost of machinery and its depreciation and finally the market demand at prices which will yield him profit. These are things which he cannot control, yet upon them depend his costs of production and the price of his product. He has control solely of the amount of his own output; he knows the amount that he can produce with his present plant and he has pretty carefully estimated the probable output of his competitors, and he may decide that any increase of output by him or by any other manufacturer would tend to demoralize the market and compel sales at lower prices, even tho the cost of making a pair of shoes had not declined.

In all industries, therefore, there is constant effort on the part of managers to keep their output at the point which shall yield them maximum profit. In an industry where there is absolute freedom of competition this is one of the manager's hardest problems.

10. *Counteracting forces.*—Wherever the law of diminishing returns applies, each increase in product is obtained at an increased cost. While this is true for a given time and a given procedure in industry, it does not follow that only thru increased cost per unit can there be an increase of product. Increase in the efficiency of capital and labor may effect a corresponding increase in production. The progress of civilization, as shown in inventions, better methods of transportation, the lessening of taxation, improvements in education, tends to lessen the cost of production, and it is therefore bound to bring about greater returns from the application to nature of capital and labor. As John Stuart Mill says: "There is scarcely any possible amelioration of human affairs which would not, among its other benefits, have a favorable operation, direct and indirect, upon the productiveness of industry."

It was the improvement in agricultural machinery and the extension and cheapening of transportation facilities that brought the western lands of the United States and Canada into the wheat-producing area and made them profitable because of a lessened producing cost. The rise in the price of an ore will bring a mine into the market with its product, while a lowering of the price will exclude it. This is frequently illustrated in the case of bituminous coal.

Improvements in production have the same effect. The immense depths of the copper mines in Northern Michigan are accounted for by the rise in the price of copper, and the marked improvement in pumps, engines and drills as well as in mining technic. Yet without question the increase in the temperature at the lower depths of the mines, the large amount of water to be pumped out, and the gradual lessening of the supply will in time bring about an increased cost of producing the supply. Unless there is a corresponding rise in the price of copper such mines will be forced into the margin of production, where their owners will be confronted by the question whether to continue at a loss in the hope of better prices, or to abandon operations. Furthermore, the history of mining records many instances where a rise in the price of the product has led to the reworking of properties once abandoned.

The law of diminishing returns, while it is true and does apply in an industry at a given time, is not to be extended in its application from one season to another, or from one period to another, without taking into consideration the introduction of machinery or new methods of production which may change the ratio of return.

REVIEW

What is the law of diminishing utility? Give an illustration of it.

What are the essential things to be noted in demand? How is it measured?

Show by an illustration how the economist uses supply in a different sense from that ordinarily given to it. How are demand and supply measured?

Explain potential demand and supply.

What is the agricultural law of diminishing returns? How does the general law of diminishing returns differ from it?

Does increase of product always imply an increased unit cost of production? Illustrate.

CHAPTER VI

CONSUMPTION OF WEALTH

1. *The objects of consumption.*—Consumption is the end of all human effort. It is the goal toward which are directed the energies of all producers. When anything is produced for which there is no demand at a price above the cost, the producer has made a mistake and suffers loss.

The first and primary object of consumption is the satisfaction we get out of the maintenance of life and health. In ordinary times many of us give little thought to the importance of food, clothing and shelter; but if an emergency arises which threatens their loss, we suddenly realize their importance and put forth every possible effort to avert the deprivation. Lacking the proper food and environment, we cannot possess the energy necessary for either mental or physical effort and are unable to provide for our future wants.

The second object of consumption is enjoyment or pleasure. The larger our incomes, the greater the amount we are able to devote to consumption of this sort. The poor man indulges in very little of it. He must be satisfied with the simplest forms of pleasure, for the bulk of his income is needed to support his family and maintain the energy necessary for his work.

2. *Necessaries of life.*—Articles which are consumed, not in order that the taste or the senses may be pleased, but in order that life and energy may be maintained, are called the necessaries of life. The most important necessaries, of course, are shelter, food and clothing. These satisfy so-called primary wants.

From the economic point of view anything is a necessary of life to an individual if the lack of it in any way impairs his efficiency or productive power. Tobacco is often called a luxury, yet to men who have formed the tobacco habit it seems a real necessity. Indeed the governments of many countries recognize it as such and make it part of the soldiers' and sailors' daily rations. By most Anglo-Saxons, wine is regarded as a luxury, but the French people think of it as among the necessaries. To the Germans, beer seems as much a necessary of life as bread or meat.

It is evident that we cannot draw a clear line between necessaries and luxuries. We can say in general that clothing is necessary, but there are many different kinds of clothing. If a man wears anything but the simplest and plainest kind of clothing, thinking of personal adornment as well as of the warmth of his body and the preservation of his health, he is indulging in something not strictly necessary. Expensive food, such as terrapin and lobster, while they undoubtedly contain nutriment, cannot be classed under the head of necessaries of life. But the economist does not attempt to make any such fine distinctions. He is satisfied with the general statement that any article is necessary to an individual or to a people if its consumption increases productivity and efficiency.

3. *Luxuries.*—A little consideration of the word luxury will show us how futile it is to attempt to draw a clear line between necessaries and unnecessaries. In everyday speech, and even in the writings of many economists, the word luxury is vaguely used and is made to include all articles the consumption of which gives pleasure without contributing in any way to the production of additional wealth. The rich are said to enjoy many luxuries which are beyond the means of the poor. Silks, rare fruits, diamonds, jewels of all kinds, confectionery, and hundreds of other articles the consumption of which adds greatly to human enjoyment, must all be classed as luxuries if we give the word a broad definition and make it include everything not necessary to the maintenance of human life and energy.

But we find people using the word luxury as if somehow it was related to a man's income. What is a luxury for one man is not always regarded as a luxury for another. We do not get at the fundamental idea embodied in the term unless we think of it in relation to income. Men work, not that they may barely live, but in order that they may get the most out of life; and a man does not do that unless he succeeds in developing and gratifying certain wants.

What the nature of those wants should be in order that any particular man may get the greatest joy out of living is a problem which each man must work out for himself. The economist merely calls attention to the fact that the continued gratification of any particular want gives less satisfaction than could be got out of the satisfaction of a variety of wants.

If the object of living is to get the greatest possible satisfaction out of life, a man must give most careful heed to the expenditure of his income. If he is reckless in its use, he may satisfy certain wants excessively and become the victim of the law of diminishing utility, or he may expend such a large amount of his income in the purchase of articles that give temporary pleasure that he will be compelled later to forego the possession of articles which in the long run would give him greater satisfaction. Evidently from this point of view what is luxury for one man is only a common comfort to another of larger income.

So we may say that a man indulges in a luxury when he satisfies a want at an expense so great that he is later on compelled to forego the satisfaction of more important wants. An automobile, for example, is a luxury to any man if its purchase price compels him to withdraw his son from school to take the place of a hired man.

Thus the word luxury is used in two distinct senses. First, to mean any wasteful, foolish, uneconomic indulgence which leads later to the pain of sacrifice; second, to designate certain articles which are popularly regarded as not being necessary for the maintenance of the ordinary comforts and decencies of life.

4. *Productive consumption.*—For convenience, all forms of consumption which have for their end the creation of more wealth, the economists call productive consumption, and the goods consumed as a result of the productive process are regarded as producers' goods. In the strictest sense all consumption is productive of psychic income or satisfaction, but in economics consumption is called productive only in so far as it leads to the increase of utilities in the form of material goods.

Men are said to spend their incomes unproductively when they consume wealth merely for the sake of pleasure and enjoyment. Gasoline is burned unproductively in a pleasure motor boat or in a joy-ridden automobile, but productively when burned in a commercial truck or in an engine for pumping water.

5. *Elasticity of demand.*—There are many articles the demand for which does not increase much even tho the price be greatly lowered. As a rule the cost of these articles is so low that most people are able to possess a supply sufficient to satisfy their needs. Salt and matches are typical commodities of this kind. If the price of salt or of matches should decline 50 per cent, it is not likely that the consumption of either would greatly increase. The demand for such articles is called inelastic, since it does not vary greatly in response to changes in price.

On the other hand, there are many articles the demand for which is very responsive to changes of price. Any decline in the price of silk, for example, almost inevitably leads to an increase in consumption. If silk could be made as cheap as cotton the demand for it would increase greatly, and the demand for cotton goods would probably suffer diminution. The development of the automobile industry proved the existence of an unsatisfied potential demand for automobiles, which became a real economic demand as the prices of automobiles came down. The demand for articles of this kind is said to be elastic.

6. *Importance to producers.*—To the producer elasticity of demand is a most important matter. If he is manufacturing an article for which the demand is inelastic, such as matches, pen points, lead pencils, he must beware of over-stocking the market, for then he may have to sell his goods at less than their cost of production. A wise producer makes a study of the market for his commodity and is able with considerable accuracy to forecast the amount that it will absorb at a price which he regards as fair. The producer of articles for which the demand is elastic must study his market, but he is in less danger; if he overestimates the market's absorbing power and produces more than he can sell at the expected profit, a slight decline of price will induce larger consumption.

People ordinarily think of the demand for an article as being fixed and capable of no variation at a given time. They speak of the demand for wheat as being, say, 100 million bushels because that was the amount consumed in the preceding year, and they think of that demand as something which must be somehow satisfied. It does not occur to them that wheat is a foodstuff for which many other foodstuffs will be substituted by many consumers as the price of wheat is advanced. The rise in the price of gasoline which followed the outbreak of the war was in the first instance the result of an increased demand for it. But at the same time this rise of price caused a lessened demand for gasoline on the part of many consumers. With gasoline at 25 and 30 cents a gallon there is less joy riding in automobiles than there was when it sold at 15 cents.

7. *Monopoly and demand.*—When a producer possesses a monopoly and is manufacturing an article for which there is no rival or substitute, the study of demand becomes exceedingly important. His costs may amount to only 50 cents, so that he might sell at $1 and realize a handsome profit. Yet he may discover that if he asks $5 for his article his sales will be almost as great as when he asks only $1, the demand being comparatively definite and inelastic. On the other hand, experience may teach him that the lower price may yield a larger profit, since it may lead to very large sales and such a popularization of his article as to relieve him of great advertising expense.

Many articles, the demand for which is inelastic, such as matches, soaps, kerosene oils and nails, are manufactured in most countries by concerns which possess a virtual monopoly thru the power of the vast capital they possess, for it enables them to produce and distribute their goods at lower cost than must be paid by the small producer.

8. *Increase of population and the food supply.*—Aggregate demand is that of an entire population. The relation between population and the food supply was discussed in a pamphlet issued in 1798 by a young English clergyman named Thomas Malthus. According to the Malthusian doctrine, population tends to increase faster than the food supply, and in support of his position Malthus gave many historical instances which showed that the population tended to increase in a geometric progression, at a rate indicated by the figures 2–4–8–16; while food supply increased in an arithmetical progression, indicated by the series of numbers, 2–4–6–8. While today the gloomy presentiments of this doctrine are taken less seriously than formerly, there is nevertheless a truth in it that is worth considering.

The advances in machinery, in the means of production and in the transportation facilities during the nineteenth century, widened the area of cultivation and increased the supply of products. At the same time, checks on population have been at work, which in a surprising way have held back the growth of numbers. A more complete economic organization has laid an increasing number of exactions on the individual, with the seeming result that the diminishing birth rate seems to keep pace with the decline in resources and the growing cost of producing crops.

The population of the United States is now over 100,000,000 and is increasing at the rate of over 1,500,000 per annum. From the point of view of consumption and the supplying of wants, this means a great and growing demand for foodstuffs, higher land values, smaller exports of food products, and larger imports of materials for manufacturing. Progressing at this rate the growth of population in the United States will necessitate the taking up of the waste places and the introduction of an era of intensive cultivation. Conservation of natural resources also must reach the stage of an economic necessity, and interest in that subject will no longer be deemed a fad as is often the case at present.

9. *Malthusian principle exemplified.*—The Malthusian law of population finds most pitiful exemplification among the very poor in all countries. It is well known that the birth rate among the poor is very much higher than among the rich and well-to-do. Also among the poor and ignorant the mortality rate for young children is greater because of insufficient food, poor housing and the lack of cleanliness. Nevertheless in most civilized countries the population is increasing in the lower levels of society more rapidly than in the higher.

Charles W. Eliot, former president of Harvard University, greatly deplores the apparent aversion of

Harvard graduates to large families, the records having shown that the family of the average graduate since 1850 contains less than two children.

It may be wise to encourage a higher birth rate among the educated and well-to-do, but any such encouragement extended to the poor is certainly unwise. It is rather the duty of society thru its preachers, teachers and physicians to try to make the ignorant get some conception of the responsibilities of parenthood, so that they will not feel, as many now do, that they are serving both God and their country when they bring a child into the world whether they can support it or not.

10. *Standard of living.*—The standard of living, which is different in the several classes of society, consists in any particular class of the things customarily enjoyed by the members of that class. Some of the things are regarded as necessaries, some as ordinary comforts, and some as luxuries. The standard of living is said to be rising whenever there is improvement in the quality of the so-called necessities, or any increase in the number of comforts and luxuries which the members of a class ordinarily enjoy and regard as necessary to their contentment.

Members of each social class or group come to have a concept of what is necessary to maintain their proper position in the class. This list, of course, must include shelter, food and clothing. Provision against sickness, and income sufficient to meet the possibilities of unemployment are also a part of the requisite income. And finally there should be provision for some social life, enjoyment of books, and a chance for additional education. To group the different expenditures in two classes will emphasize the point of view that is indicated in this paragraph—first, the support things, including food, raiment and housing; and second, the spiritual things, which may be summarized in amusement, education and society.[1]

In the books of the English classical economists the "Iron Law of Wages" was frequently referred to as governing the return of labor. According to this law the wages of unskilled labor constantly tend toward the cost of subsistence. Such a meager existence unfortunately constitutes the actual standard of living in many districts.

Above this is the normal standard of living, which emphasizes the healthy growth of the family in mental, moral and physical directions and leads to a higher type of individual, better educated and endowed physically. An ideal standard would include this and more—comfortable housing for the family, good food and opportunities for the development of the æsthetic and spiritual sides of man's nature.

11. *Stimulus of the standard.*—Within bounds, the standard of living that is hoped for has a marked effect upon the ambitions, tending to stimulate the worker to greater efforts to supply his wants. The

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[1] Paraphrased from F. H. Streighthoff, "The Standard of Living Among the Industrial People of America," Chapter I.

trade-union has been able to insist upon a minimum standard of living as secured thru a given wage. In so far as the higher standards of living have been realized the family life of the nation has been much benefited, but where the standard of living cannot be realized, tho it may still be insisted upon, the family life may be rendered increasingly unstable. To found and maintain a home with rising standards of living requires a larger income than is attainable by any considerable part of the population. Consequently there are increasing domestic difficulties and a lower standard of family life.

The standard of living is an important economic factor, and from the psychological point of view has much to do with keeping up the struggle for the economic means to supply wants. In America the pressure of the standard has reduced the size of families among the native-born, and increased the competition in occupations in which wages are low as compared with the standard of living. The more unskilled trades and occupations have been taken by the foreign-born; and the native-born have been driven into the higher grade occupations, where wages and the standard of living are higher.

12. *Determining the standard.*—Putting the matter broadly, there are three ways in which some approximation of standards of living may be reached; the first of these is thru the process of intelligent guessing: the second, by getting an authoritative statement of the cost of what is needed to maintain an

average family; and the third is thru the information gained by the study of family budgets.

The various government statistical bureaus in the United States and Europe have worked out an estimate of the commodities required for the support of a family and then figured their cost. This method has been followed by such careful investigators as Professor R. C. Chapin,[1] Mrs. Louis B. Moore,[2] and her associate, Miss Elizabeth Lennox, who have given the public the benefit of their researches in the collection of family budgets.

As early as 1857, Ernst Engel, the head of the Prussian Statistical Bureau, advanced the theory that the study of family budgets should yield a number of interesting results that would be helpful in ascertaining economic conditions. His table is given below.

THE ENGEL TABLE

	In Percentages					
Items of Expenditure	Income $225–300		Income $450–600		Income $750–1000	
1. Subsistence	62	95	55	90	50	85
2. Clothing	16		18		18	
3. Lodging	12		12		12	
4. Heat and light	5		5		5	
5. Education, church	2	5	3.5	10	5.5	15
6. Legal protection	1		2		3	
7. Care of health	1		2		3	
8. Comfort, mental and physical recreation	1		2.5		3.5	
	100		100		100	

Studies in New York City, previously referred to, showed a division of expenditures somewhat different from that of the Engel table, tho practically substantiating it. In the New York investigations food is placed at 43.4 per cent, rent 19.4, clothing 10.6, light and fuel 5.1, insurance 3.9, and sundry expenditures 17.6.

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[1] "Standard of Living Among Workingmen's Families in New York City, 1909." Charities Publication Committee.

[2] "Wage Earners' Budgets," New York, Henry Holt and Company, 1907.

These investigations are very laborious and the results stated in dollars and cents apply only to the families investigated, the locality and the time of the inquiry. Generalization from such results as to the average standard or the minimum standard are hazardous.

The standard is profoundly affected by changes in the prices of commodities. Assuming a given distribution of family expenditure the National Industrial Conference Board in July 1915 found that a year later the cost of living had risen by 8.7 per cent, two years later by 31.3 per cent, and that the culminating point was reached in November 1920, when the cost of living stood at 104.5 per cent over that of 1915. The adjustment of income to these necessary changes in expenditures usually lags behind when living costs are rising. This means at least temporarily a lowering of the standard, which may effect a serious impairment of productive power.

13. *Philanthropy.*—Some time ago it was pointed out very emphatically that sums given for philanthropic purposes were withdrawn from the production of material goods and services. A hundred million dollars so used meant just so much less devoted to

agriculture, mining, manufacturing or transportation. This is true but there are no signs at present of a philanthropic disposition of wealth sufficient to make any serious inroads upon funds devoted to business enterprises.

Such benefactions may in some small measure curtail investment in business enterprises but it requires a lively imagination to see in them a "menace" to our economic welfare. Such a view not only magnifies them beyond measure, but ignores the further consequences which may flow from them. Who shall say whether the use of these funds for education, for the pursuit of science, for the relief of suffering in many forms may not make contributions to the productive power of society far in excess of anything they may cost?

14. *Cost of government.*—A large amount of the world's new wealth is consumed in the support of the governments of nations and their various subdivisions. This is sometimes referred to as public consumption; and the various methods of raising and distributing the necessary funds form the subject-matter of public finance.

Much of the consumption of wealth by governments may properly be called productive. Courts of law are necessary for the maintenance of justice; policemen and firemen for the protection of life and property; public school teachers in order that education may be open and free to all; boards of health that the inroads of disease may be checked; and congresses, legislatures and parliaments in order that expenditures may be made for the common welfare of all citizens.

For example, the United States Government in the first decade of the twentieth century expended $242,000,000 for the improvement of rivers and harbors, and this expenditure if wisely planned and executed was productive in the economic sense. Unhappily much wealth is consumed by governments wastefully and therefore unproductively. It is a notorious fact that government employes work with less energy and diligence than the employes of a private concern, that producers selling to a government exact exorbitant profits whenever possible, and that public officials are less wary in entering into contracts for the government than they would be if doing business for themselves. For this state of affairs no remedy can be found except in education. As people realize more fully the services which a good government can render and how closely it is related to their own personal welfare, they will insist upon placing in office only men of integrity, zeal and intelligence.

15. *War.*—In times of peace most governments maintain armies and navies; and many of them expend considerable sums in the payment of pensions to old soldiers. All expenditures of this sort are economically unproductive. If all thought of war could disappear from the minds of men, the wealth of the world would increase much more rapidly; and a much larger population be supported.

War causes an actual diminution of a country's wealth in two ways. First, it takes men out of productive employments and puts them into battle; second, those men while continuing to be great consumers of foodstuffs and clothing become also consumers of vast quantities of munitions, which have been produced at great cost by the men, women and children who stay at home. A war which calls to the front even no more than one-tenth of the men of fighting age and ability necessarily causes an economic or industrial upheaval. If a million men take up arms many million others must change their occupations, stop producing the useful objects of commerce, and work in the manufacture of ammunition and war supplies. Thus a war destroys physically vast amounts of wealth, munitions, airplanes, battleships, and other property, and also causes a lessened output of the articles ordinarily produced for the satisfaction of human wants. If a crazy king had the confidence of his subjects and should order that one-fourth of all the produce of their labor be taken to sea and sunk in the ocean in order that the gods be propitiated, he would do his people less economic injury than would be wrought if he plunged them into war.

16. *Economic effects of war hidden.*—The real effects of war upon industry, upon consumption and upon the economic welfare of a people are veiled during its progress. The government raises immense sums of money by means of taxation and bond issues and enters into the various markets as a gigantic

buyer of the products of labor. New factories are built and the demand for workers is insatiable, labor and capital being diverted from many industries. The prices of foodstuffs and of most of the necessaries and comforts of life also advance because of the war demand, because of the scarcity of productive labor and because of the great expansion of credit incident to the war loans. During the progress of a war business changes its character, but is active; many individuals make fortunes; and all classes of labor demand higher wages. The country seems to be more prosperous than ever, and unthinking people do not see that it is actually growing poorer every day. If a million men of gigantic stature should capture the United States and compel its people to feed, clothe and house them comfortably, every one of us would realize the cost, yet the economic effort would be much like that of war.

Not until after a war is ended and all extraordinary expenditures by the government have ceased, do the people of a country begin to pay its economic costs. Only a small part of this cost is represented by the interest which must be paid on the capital borrowed and destroyed during the war. When people return to the industries of peace it is soon discovered that the old markets have lost their buying power and that the amount of capital available for production is less than had been supposed. Then comes a period of depression which is like that of convalescence after a fever, the nation as a whole being industrially feeble and incapable of new enterprise. If a country can get thru such a period without a financial panic or a commercial crisis and without great distress among large numbers of unemployed, the people may consider themselves fortunate and should be grateful not only to God but also to their entrepreneurs, their captains of industry and finance, who during the period must have most wisely regulated their production if not their consumption of wealth.

17. *The destructive power of nature.*—From time to time a vast amount of wealth is destroyed by storm, fire and flood. A tornado on the Great Lakes and along the east coast of the Atlantic not long ago drove hundreds of vessels ashore, drowned many persons and destroyed valuable cargoes. In 1913, a storm on the Japanese coast, accompanied by a volcanic eruption, killed thousands of people and destroyed the property of many more. The report of the engineering division of the War Department states that the annual loss from floods in the United States averages $50,000,000. In a recent Colorado flood the loss to railroads, cities and private individuals ran into the millions.

Losses by fire add to the appalling aggregate of wealth destruction. In recent years the fire losses in the United States are estimated at about $200,000,000 a year; and despite the efforts of the insurance companies and other agencies to limit the size and frequency of fires, the absolute amount of waste has declined but slightly. The newness of some parts of the country, the absence of regulations for building in many places and the failure to provide first-class protection against fires, give the United States a per capita fire loss which is from five to six times as large as that of any of the leading European countries.

18. *Consumption and progress.*—From a purely materialistic point of view a nation can be said to be making progress when the labor of its people produces greater wealth, whether because of new inventions and machinery, or because better conditions of living have improved their health and increased their energy, or because they have been better trained and organized. Progress of this sort would mean an increasing demand among all the people for the necessaries and comforts of life and doubtless an increase in the variety of goods which they consumed.

Economics is sometimes called a materialistic science because the economist seems to be interested only in progress of this sort. In reality, however, the economist is no more materialistic than the psychologist or sociologist. He sees clearly that any cause which tends to lower the cost of producing the necessaries and comforts of life will tend to increase the welfare of people now on the earth and to make possible a still larger population in the future. He also sees more clearly than others the evil economic effects of unwise consumption, of excessive indulgence in any form of pleasure, of alcohol and other drug habits—these weaken character, injure the health and lessen a people's productive power.

19. *What is progress?*—True economic progress is identical with the advancement of civilization and is not measurable in material good. The difference between the civilized man and the savage is found, first, in the greater number of goods which the former can produce and enjoy, and second, in his control of sources of enjoyment which make no appeal whatever to the savage. In other words, the civilized man gets more delight out of his physical senses than does the savage, and also out of what might be called the higher senses, the æsthetic, the intellectual and the spiritual, which in the savage are almost dormant. Hence churches, universities, art galleries, public parks, statues of heroes, beautiful homes, are all landmarks of economic progress or civilization. They express the existence of wants higher than those of the senses and mean that men are getting vastly more out of life than mere physical comfort and pleasure.

Any change in the condition of a people which tends to increase their happiness may be regarded as a step forward in civilization. For example, if a nation improves its educational system or enacts wiser laws, regulating the conditions under which labor may be employed, or adopts a policy which makes war less probable, it is moving forward and upward. The economist in his vision looks forward to an ideal civilization. In it labor will be so admirably adjusted to ability that all men will love their work: the consumption of wealth and all the enjoyments of life will be so rationally balanced that disease, poverty and misery will disappear from the earth. This economic millennium unhappily seems just now to lie far in the future.

20. *Impediments to progress.*—Folly and extravagance mark the consumption of many people. Much of their income is squandered upon pleasures and luxuries that are hurtful to their health and to their morals. The economist may grieve over these facts as a man, but as an economist it is his business to study the facts and conditions as they exist. It is his task first to know what is, and why, not what ought to be. He may also be a social reformer and endeavor to make people improve their method of consumption, but that is not his task as an economist.

The entomologist must know the anatomy of the wasp and not waste his scientific time worrying about its dangerous end, nor can the zoologist stop to consider methods of breeding fangless rattlesnakes.

There are plenty of human wasps and snakes, and the economist is interested in knowing their number, their methods of attack and the conditions which breed them; for they are destroyers and not producers. As we shall see later, the production of wealth at the present time is the result of an involuntary cooperation among millions of workers and mutual confidence is absolutely essential to the highest rate of production. Dishonesty, misrepresentation, deception of any kind, like sand in the cogs of a machine, lessen the efficiency of the industrial organism, thus lessening the production of wealth and the sum total of human welfare.

It is the economist's duty to call attention to economic evils and perils as they are discovered and to make clear the causes and conditions responsible for their existence. The consumption of tobacco and alcoholic beverages gives pleasure to many people, but the economist knows that such consumption tends to raise the price of a loaf of bread because of the land and labor which are diverted from the production of wheat; and it is his duty to make this truth clear.

REVIEW

What is consumption and what are its purposes?

What do you understand by productive consumption?

Explain the difference between an elastic demand and an inelastic demand, and their bearing on the welfare of producers under competition and under monopoly.

What is the Malthusian doctrine and how does it apply today?

What is the standard of living? Why is it important? How is it determined?

How is a country's wealth diminished in time of war? Why does a country seem to be more prosperous in war time than at other times?

CHAPTER VII

VALUE AND THE CONSUMER

1. *Suppose the consumer cannot sell.*—In this chapter we shall consider the important subject of value entirely from the consumer's point of view. Since all goods are made to be consumed, their value to consumers is of decisive importance.

To the consumer the value of any article depends upon its utility, upon how much he wants it, upon how much satisfaction he expects to get from its consumption. No man will pay a dollar for an article unless he believes he can get a dollar's worth of satisfaction out of it. If he is choosing between different articles he will take the one that promises him the greatest pleasure; that is, the one which seems to him to possess the greatest utility. One man, for example, may spend his dollar for ten cigars, which he may consume in a day; while another would buy enough pipe tobacco to last him two weeks and think of the other fellow as possessing a foolishly extravagant taste. The first man might get no pleasure from an ill-smelling pipe and condemn what he deemed the vulgar taste of the second. He might, however, refuse absolutely to pay more than ten cents for a cigar; and if the price of tobacco were advanced the pipe smoker might reduce his consumption or change to a cheaper brand.

To the producer the value of an article is closely related to its cost of production. He wants a price that will cover its expense of production. If costs rise he thinks values must rise.

To the trader, who neither produces nor consumes, the value of an article depends on the law of demand and supply.

In this chapter we shall leave both producer and trader out of consideration. We shall think of goods solely in relation to the consumer, and we shall assume that the consumer is not in a position to sell or exchange any of the goods in his possession. He buys goods for the satisfaction he gets out of them, but he does not sell. For example, if each of six dear friends should give you a gold watch, all of the same make and quality, how much would you value each of those watches? Of course if you can sell five of them you would value them all at somewhere near their market price; but suppose your conscience won't let you sell them because they are gifts of friendship, then you would be facing the consumer's problem.

2. *Utility of consumable goods.*—A consumable good is one which gives pleasure or gratification directly to the consumer; for example, a suit of clothes, a fountain pen, a cup of coffee or tea, roast beef, the furniture in our homes.

The amount of goods consumed by a man depends upon his income as well as upon his tastes. While a man of ordinary income might get great pleasure out of a high-powered automobile, yet its purchase and upkeep would make such a serious inroad upon his income and he would have to sacrifice so many other pleasures and comforts that the net result might be loss of satisfaction, and therefore discontent. Almost unconsciously men are weighing desire against desire, seeking to expend their money income in a way that will yield them the greatest psychic income. Each one of us is confronted by the law of diminishing utility just as a farmer is confronted by the law of diminishing returns. A man who can satisfy only a few wants, or who is not wise enough to seek variety in consumption, leads a monotonous life and is always liable to the evils of satiety and ennui.

Consumable goods are the ultimate objects of production. The trees of the forest are felled in order that they may be made into houses, boats, furniture, etc. Some of them become the handles of axes, hoes and rakes or the parts of work wagons, but all these goods possess utility solely because of their usefulness in the production of consumable goods. The ax is not a consumable good except to a man who, as Gladstone did, gets pleasure from chopping down trees.

3. *Utility of capital goods.*—The goods mentioned in the last two sentences of the foregoing section are called by economists capital goods or producers' goods. Their utility is only indirectly related to human wants. Indeed, many of them are offensive to the senses no matter how desirable their final product.

Many of our factories are architectural monstrosities. Slaughter houses, packing houses, glue factories and fertilizing works give rise to continuous complaints from people living within several miles of their location. Elevated railroads in cities are declared a nuisance by people who own real estate in their vicinity. John Ruskin never tired of railing at the nineteenth century manufacturer who would slaughter a landscape or befoul a river in order that the rich might have more luxuries.

Probably as the feelings of men became finer, more and more attention will be paid to the esthetic side of producers' goods. A tool or a machine or a factory can be beautiful as well as useful. Indeed, the French and the Japanese have already proved the truth of this statement, many of the useful products of their manufacture deserving in a sense to be called works of art. The Anglo-Saxon, however, and especially the American, has had his mind mainly bent on usefulness, convenience, speed, economy of production, and too little upon beauty. In this day of cheap watches why should the factories of a city still assault our ears morning, noon and night with their batteries of whistles? In these days of high cost of living why should the factories of towns and cities be permitted to dump poisoned refuse into rivers and so destroy the fish as well as the charm of the streams? In a model city the buildings of a manufacturing plant would be good to look upon and their location would be such that the necessary noise and smoke would not annoy the consumer.

But the utility and value of producers' goods are the result, not of any beauty which they possess, but of their efficiency in the industrial process which has for its end the production of consumable goods.

4. *Marginal utility.*—In order to give brief and concrete expression to the thought or general principle laid down in the law of diminishing utility, economists have invented the phrase marginal utility. They mean by it the utility of any single unit of a commodity as determined by the amount of the existing supply.

For illustration, let us return to the case of the poor man with only one shirt. To him that shirt must evidently possess great utility. Perhaps he has to stay in bed while his wife carefully launders it. Its utility and its marginal utility are the same, for it constitutes his whole supply. But suppose he gets a second shirt. Then neither to him nor to his wife will a single shirt seem such an important thing. The second shirt will be just as useful as the first, but he will not value it so highly as he did the first, and it should be noticed that his former high regard for the first shirt will have disappeared. Each shirt possesses to him the same utility, and that utility is less than the utility of shirts when he owned only one. Since he probably gets more satisfaction out of two shirts than he did out of one, we cannot say that to him the utility of shirts in general has declined, but merely that the utility of each shirt is less, that he wants each less because he has the other as a substitute; and this fact economists express by saying that to him the marginal utility of shirts has declined.

Now suppose that thru the deaths of certain relatives he falls heir to twenty shirts and that he has no bureau in which to keep so many, suddenly a shirt has become to him an unimportant piece of apparel. He has more than he wants and would not grieve if his wife should ruin one on the ironing board. This would mean that to him shirts possessed no marginal utility, which is only the economist's way of saying that his supply of shirts exceeded his possible needs as a consumer.

5. *Marginal utility connotes supply.*—The reader should not fail to note that the phrase marginal utility always connotes the idea of supply. When the supply of wheat increases in a country, assuming that there is no change in the demand, economists say that the marginal utility of wheat tends to fall. That is only another way of saying that each bushel of wheat in that country has become of less consequence or importance as a means of gratifying men's wants. On the other hand, if the world produces only half the usual crop of wheat, then a bushel of wheat increases in importance and wheat is said to possess greater marginal utility.

The word marginal is employed because economists first thought of the law of diminishing utility in its relation to successive acts of consumption performed by a single individual. For example, take a man who likes apples and who has not eaten one since yesterday. If he has before him two apples he may know by experience that he will get equal satisfaction out of the eating of each apple and will not willingly part with either. If a third apple is added to his stock he may regard it with some indifference, for he may know that its eating will give him less pleasure than he gets from the first and second apples. This means that he wants the third apple less than he wanted the first and second. It means also that each one of the three apples possesses to him less utility or is less desired than was either of the two apples when they constituted his total supply. The third apple conceived of as added to his supply is spoken of as the marginal apple and its utility represents the marginal utility of apples when the supply is three. If ten apples are before him, the utility of each apple is no greater than the utility of the tenth added to his supply. And if we assume that the apples would be unfit to eat on the next day, it is pretty certain that he would be willing to give away part of his stock. In other words, with ten perishable apples before him the marginal utility of apples would probably become zero.

6. *Marginal utility and value.*—It must be evident to the reader that marginal utility and value are very closely related. Indeed, in the foregoing section I have used the word value as if it were almost a synonym of utility. I have said that a man possessing

only one shirt values it more highly than if he possesses twenty. Here I was using the word value subjectively to indicate the importance of a unit of a good in the judgment of its possessor. In this subjective sense we value all goods which we are asked to buy or which we think of producing for our own consumption. A man who cultivates vegetables for his own table necessarily gives some thought to the number of rows that shall be in peas, the number in beans, the number in corn, and so on. Two rows of corn he may value highly, a third row less, while he might decide that the yield of a fourth row would be of less value to him than a row of turnips. By subjective value is meant the importance which man attaches to any object as a means of gratifying his wants.

But in business, as we have said, the word value means exchange power: the value of a bushel of wheat is what you can get for it in exchange. It is evident that the exchange value of any article is somehow very dependent upon its subjective value or utility to the consumer. Subjective value fixes the maximum above which the exchange value cannot rise. Since all buying and selling is done with money, we can at any time think of value and price as being synonymous and speak of values in terms of money. When we say that subjective values fix the maximum of exchange values, we mean merely that a man will not pay more money for an article than he thinks it is worth to him. If the producer asks a higher price the consumer simply does not buy. He has the last word in the process of bargaining. If he does not like the price he spends his money in some other way, which he believes will yield him greater satisfaction.

Since the marginal utility or subjective value of an article tends to decline as the supply of it increases, it is evident that its exchange value must tend to decline at the same time, for consumers subjectively, valuing it less, will not buy unless the price is lowered. On account of this fact, economists of the ultra psychological school hold that marginal utility and value are virtually identical or at least that the value of an article is the market expression of its marginal utility. As we shall see, this statement is not strictly correct, for we shall find that marginal utility is not the only factor nor the dominant factor in determining the value of a good. In the next chapter we shall discover that the cost of production of the good is equally important.

7. *Classes of consumers.*—But the reader may ask, "In this world's great and conflicting markets, of what significance is a man eating red apples or a man who owns only one shirt?" What possible bearing can their desires and feelings have upon market prices? The laying out of a garden is simple enough. Anybody knows that a man would be a fool if he put in more corn than his family wants to eat, but what has that got to do with the market price of cotton, steel rails, locomotives, Panama hats and automobiles?

Simply this. All the bargaining, buying and selling and price fixing in the world's markets are determined by the same elemental forces which we have described in the man eating apples or the man who had only one shirt. In order that the reader may see the truth of this statement clearly and begin to unravel the apparent snarls of the markets he must first take note of the fact that in any civilized country there are many different classes of buyers or consumers.

In the first place, we may roughly divide consumers into three classes—the rich, the middle class, the poor. A rich man may want an article no more than a poor man and yet be willing to pay a higher price for it because he values money less. Take, for example, a simple article like milk. A one cent advance in the price of a quart of milk will not lessen its consumption in the rich man's family, but it will in many poor families and many housewives of the middle class will begin to be more economical in its use. Some consumers of meat consider it a necessary of life and do not stop its consumption even tho its price greatly rises; an advance of the price drives others to the consumption of fish, and still others to an increased consumption of beans, peas and other vegetables rich in proteids.

In the case of all commodities, as dealers and manufacturers know very well, there are different classes of consumers. Some buy liberally without much regard to the price while others are most sensitive to price changes. Out of cotton are made fabrics of great importance to the poor. People of the middle class and the rich will not increase their consumption even tho the price greatly declines; hence an unusually large crop of cotton in normal times results in the fall of the price out of proportion to the increase in the supply.

So in the case of each commodity there are different classes of consumers, some much more sensitive than others to changes in the value, some indifferent as to the price, who consume the customary quantity regardless of what they have to pay for it, others who reduce their consumption or stop consuming altogether as the result of a certain advance in price.

8. *The marginal consumer.*—The consumer who is least anxious to buy and consume, whether because his want is the least intense or because his purchasing power is small, is called the marginal consumer. An advance of the price drives him out of the market; he gives up the article altogether and looks for a substitute which will be cheaper. His place as marginal consumer has been taken by another, by one who is barely willing and able to pay the higher price. On the other hand, if the price is lowered another type of marginal consumer may come into the market, one whose desire for the good is less intense or whose means are less ample even than those of the first. Thus any change in the price of an article affects the quality and rank of the marginal consumer who buys it.

When we take into account the fact that society is virtually divided into many different classes of consumers, different because of their tastes and incomes, we can see clearly why it is that a change in the market price of a commodity brings about a change in the effective demand for it, why a rise in its price causes one class of consumers to hold off and so to reduce its consumption, and why a lowering of the price brings into the market a new class of consumers causing increased sales.

In any industry the marginal consumer class is of great importance. That class and the one just below it are the ones to which the appeals of the advertiser must be especially directed. In fact, from this point of view we might define the essential aim of advertising as being able to hold the marginal consumer and gradually to lower the margin of consumption, so that people who are now indifferent to an article because of its price or lack of desire for it shall be persuaded to buy it. To some people the telephone is almost a necessity. They will have it in their offices and in their homes almost regardless of the price. To others it seems a luxury which they can hardly afford. Among these latter are found the marginal consumers and those who are almost persuaded. It is to these that the advertisements of the telephone company should be addressed.

9. *Marginal concept in other fields.*—This marginal concept is a useful one outside of economics. In politics we might speak of the marginal Republican, meaning thereby the dissatisfied man who votes the Republican ticket with reluctance, not certain that

he should not vote with the Democratic or some other party. The "spell binders" should aim their oratory at him and not be content merely with the expression of sentiments which bring applause from the majority.

The slowest ship in a battle fleet might be called the marginal ship; it limits the speed of the whole fleet.

A teacher must pick out the marginal student in his class. Shall he lecture so clearly and simply that even the dullest student can understand? Or shall he take those that are 20 per cent higher in intellectual ability and be satisfied if he makes his expositions and explanations intelligible to them, letting those more dull flounder as they please? Every teacher unconsciously does this, altho some think they have in mind the capacity of the average student. But that cannot be true, for there is no such thing as an average student.

The preacher to be effective must make his strongest appeal to the wavering, uncertain ones almost ready to renounce their evil ways, as well as to those members of his church who are sliding backward.

10. *Consumer's surplus.*—As we have seen, the wants of men differ greatly and are subject to diminution as they are gratified. A man's valuation of money depends very much upon the amount in his possession. The more money he has, the higher the price he is willing to pay for the gratification of any

desire. Of two men who want an article with equal intensity the one who has the more money is likely to be willing to pay the higher price.

We have also seen that the price or value of an article is somehow related to its marginal utility, tending to coincide with it. We have seen that the price of an article must be one satisfactory to the marginal consumer, the one who is willing to pay the least for it.

It follows, therefore, that many of us are able to buy articles at prices lower than we would be willing to pay if necessary. Many people get milk at fifteen cents a quart who would buy just as much at twenty-five cents a quart if that were demanded. But the marginal consumer keeps the price at the lower figure, for if it is advanced he stops buying and the product is not sold. Many of us buy as many lead pencils at ten cents apiece as we did at five, but the marginal consuming class of buyers forbids much further increase; if it were made they would stop buying and the whole product could not be marketed.

Thus it happens that the prices or values of articles in the market, in so far as they are determined by the will and desire of purchasers, represent the intensity of the desire of the marginal consuming classes and not the average of the total desire for the article. Hence most of us are able to obtain with our money the enjoyment of goods for which we would be willing to pay a higher price if we had to. If a man is willing to pay a dollar for an extra pair of suspenders but is able to buy them for fifty cents, he is evidently getting a dollar's worth of satisfaction at half price.

Economists call this unpaid-for satisfaction the consumer's surplus. It may be defined as follows: That part of a consumer's satisfaction or enjoyment which is more than sufficient to compensate for the sacrifice necessary to obtain it.

The marginal consumer gets no surplus. He is barely compensated for the sacrifice he makes. All above him, who desire the article more intensely or who have more ample means to purchase, are assumed to get more satisfaction than they really pay for.

11. *A Yankee auction.*—An auction is a device adopted by the seller to circumvent the law of diminishing utility and destroy the consumer's surplus. In a market uniform prices prevail. A seller cannot ask a high price of one buyer and a low price of another unless he is willing to lose standing among his customers. But at an auction the buyers are shrewdly put into competition with one another and out of each buyer is coaxed the price which he is willing to pay.

In rural districts, especially in New England, auctions of household goods and farm implements always attract crowds from many miles around, some intending to buy, others seeking diversion. When a farmer advertises an auction of his property, his neighbors sometimes utilize the auction to dispose of surplus furniture and china, having discovered that in this way they can get better prices than if they try to sell their stuff at a fixed price.

Let us suppose that Ezekiel Jones announces an auction of his household belongings and that a grandfather's clock is listed on the bill. Let us suppose also that three men go to that auction with their minds made up to bid for that clock. One has been urged by his fiancée to buy it for their new home, and he has resolved to bid up to $75 rather than not get it. The wife of the second has expressed a desire for it and he has fixed the limit of his bidding at $50. The mother-in-law of the third has expressed a desire for the clock and he has resolved to bid at least $25 for it.

So when the clock is brought forth the third man starts the bidding at $10; the second raises him to $15, and the first goes up to $20. The third goes to $25, then drops out as the two other bidders push the price on up to $50; then the second man drops out, and the first man has no competition except perhaps the bidding of a shrewd confederate of the auctioneer, who may push the price up to $75, at which the clock goes to the man who wants to please his sweetheart.

Half an hour later, let us suppose, a second clock is brought forth, just like the first. Again there is lively bidding, but the man who had bought a clock takes no part. To his disgust he sees the second clock, which is quite as fine as his own, knocked down at $50. Then suppose that half an hour later a third clock of the same sort is brought out. There is only one man in the crowd who wants it, but by the aid of the auctioneer's confederate he may be forced to bid up to $25.

Thus the three clocks are sold for a total of $150, whereas if they had been price-marked and sold as in a market, each having the same price, that price could not have been above $25, for at a higher price only two of the clocks would have been sold. In this and in other ways a shrewd auctioneer can always earn his fee.

12. *Economic life of commodities.*—The reader may object to the foregoing illustration as not being pertinent because the farmer might have priced the three clocks at $50 each, sold two of them, and then have taken in more money than by selling all three at $25 apiece. He might better, it will be said, have sold two clocks at $50 apiece and kept possession himself of one clock.

This objection or criticism overlooks the fact that virtually all goods are now made to be sold and that there is a definite period during which they must be sold. In the case of the Yankee auction we assumed that the goods must all be sold on a single day and showed that the sale by auction was more effective than a sale by fixed price. A similar assumption can be made with respect to all commodities.

By the economic life of a commodity is meant the period during which it retains its utility and is therefore in demand. The economic life of berries and other fruit is very brief; they must be sold within a few days after picking or their utility will vanish, a fact which accounts for the bargain prices for fruits on Saturday evenings. The utility of some other goods depends on the seasons, lasting only a few months; hence the bargain prices for summer goods late in August. The utility of yet other goods is due to fashion, and fashion is a capricious goddess; things that please her today have no charm tomorrow.

There are many other reasons why goods must be sold within a definite period. The most important one is the producer's need for the restoration of the capital which he has paid out in the hire of labor and in the purchase of raw materials. His bank will carry him for a time, but that means the payment of interest and is expensive. Whether his goods are perishable or not, he wants back the value which is tied up in them, and he would rather sell at some sacrifice than become too heavy a debtor at the bank.

In some measure, therefore, the consumer holds the whip-hand in the fixing of prices. He is not obliged to buy any particular article, yet the producer in a way is obliged to sell. For this reason the marginal consumer becomes a personage of exceedingly great importance in any industry.

13. *The market price.*—Furthermore, in contrasting the Yankee auction with existing business conditions, the reader should take note of the fact that in an ordinary market many sellers are competing with one another and that no one of them is able to fix the market price, whereas at the auction there was an apparent lack of competition among the sellers. Ezekiel may have kept the $75 received from his clock, but he may have agreed with the owners of the two other clocks to divide the proceeds of their sale evenly between them.

In a market there are no such agreements and no such differences in price. At any particular time the market price of any commodity tends toward that figure which in the judgment of the shrewdest buyers and sellers will hold the custom of the marginal consumer. If sales are slower than was expected it is known that the price must be lowered in order that less eager buyers may be brought into the market. On the other hand, if sales are unusual in volume, here and there a dealer tries an advance of prices, utilizing the competition of buyers with one another, but seeking to dispose of his entire stock before a contrary price movement sets in.

Thus market prices are the product of various and conflicting forces and desires, and among these the marginal consumer is one of the most important. The position and power of the producer we will consider in the next chapter.

REVIEW

What are consumable goods and what gives them their utility?

Show by an illustration what you understand by marginal utility.

The subjective value of an article as the economist conceives it and the exchange value which the business man understands tend to decline at the same time. Why?

Who is the marginal consumer and why is he so important in the business world?

What is the consumer's surplus? Why is the purchaser at an auction sale likely to lose a part or all of this surplus?

What essential advantage does the ordinary market have over an auction sale? What determines that advantage?

CHAPTER VIII

VALUE AND THE PRODUCER

1. *The producer controls the supply.*—In the preceding chapter we have seen that the consumer has much to do in the creation of the phenomenon called value. From him comes the demand for commodities, and so he might seem to be in absolute control of their value.

But the consumer cannot wholly control his desires. Imperious wants possess his soul and he demands their gratification. The producer, knowing the existence of those wants, brings into existence the things that gratify them and demands a price which will give him compensation for his labor and sacrifices.

The producer controls the supply. If the price offered him is unsatisfactory, he declines to produce, and the competition which follows among consumers for the possession of the lessened supply causes the price to rise.

Thus it is evident that in the determining of market prices or values the producer is a factor quite as important as the consumer. In one the demand originates; the other brings forth the supply.

2. *Value and cost of production.*—As we have said in a previous chapter, cost of production means the

amount of human effort necessary to produce an article. A farmer who builds a fence around a new pasture, devoting a week to the task and doing all the work himself, would probably think it had cost him only the amount of money he paid out for posts, boards, nails, but he would be mistaken. That would be merely its expense of production. The real cost would be the week's labor plus the labor that brought him the money which paid for the materials used, plus the care and constraint necessary to save the money.

In the production of goods capital as well as labor is employed. The producer expects to sell at a price that will enable him to replace the capital used up, to pay interest to its owner, to pay the wages of labor, and still have left a surplus or profit at least equal to what he might have made by working for others. If the market for any article is disappointing and some producers are compelled to sell below cost, those who are less able to hold on in the hope of a higher price in the future will cease to produce, whereupon as a result of the lessening of the supply the market price tends to rise. On the other hand if the market for an article is far above the cost, so that its makers are earning an unusual profit, new men are tempted to put their capital and energy into the industry, and those already engaged in it are inclined to increase their output; the result is an increase of production, an increase of supply and a tendency of the price to move downward.

Thus it is clear that value or price in the long run fluctuates about the cost of production, always tending to coincide with it. This fact was so obvious to the economists of the last century, particularly those of the English Classical School, that many of them made cost the determining factor in the creation of value. This was a mistake; as we have seen, utility is also an important factor. Which is the more important, cost or utility, it would be idle to discuss. It would be like trying to decide which is the more important—the fishhook or the fishline, the pipe or the tobacco, the lamp or the kerosene, the button or the button hole, the hook or the eye, the upper or the lower blade of a pair of scissors.

3. *Marginal producer.*—The cost of producing an article varies in different factories and in different locations. This fact is most noticeable in the extractive industries, such as agriculture and mining, where production is clearly subject to the law of diminishing returns and increasing costs. But it is true also in the case of manufacturing industries. The costs in one factory may be relatively low because of its advantageous location near a railway, or because it utilizes water power at little expense, or because its owner has mastered a process known only to a few, or because it is located in a community where cheap labor is available. On account of circumstances like these it is not possible to say definitely what the cost of any article is. If we knew what its cost was in all the factories where it was produced, we could, of course,

get its average cost, but that is impracticable and the information would not be worth the effort to get it.

Society is greatly benefited by any reduction of costs and men of inventive genius are constantly at work seeking to bring this about. The man whose costs are lowest can sell at the lowest price without suffering loss and, on the other hand, make the biggest profit when prices are high.

With which of these various costs does value tend to coincide? Is it with the lowest cost, with the highest cost, or with the average cost?

It may seem paradoxical to the reader who has never thought of this subject before, yet it is a fact that the value of any article always tends to coincide with the cost of that part of the supply which is produced at the greatest disadvantage, so that in any industry those factories in which costs are highest are more important in the determination of value and market prices than all the others. For convenience such factories are called the marginal producers. They are said to be on the margin of production.

It is evident that the marginal producer, the man whose costs are highest, is the most anxious about prices, is least willing to sell when prices are low, and is the first to suffer loss when the market for his article weakens. He stands, as it were, on the margin of prosperity, on its very edge, and is easily pushed over the precipice into bankruptcy.

In times of great prosperity, when the prices of many articles are advancing, the marginal producers in some industries begin to make great profits, then more entrepreneurs and more capital are attracted into those industries, more factories are built, and more goods are manufactured, even tho the cost in the new factories exceeds that in any of the old. The old marginal producers are now no longer on the margin, a new class stands there, and as a result of the increase in the output there is normally a tendency toward lower prices. If prices do go back to the old level, the new marginal producers are the first to suffer and those who are financially weak are compelled to withdraw from the game. On the other hand, if in spite of the increased supply the market absorbs all the product and demands more, then prices will continue to rise and still other producers, some of them not well equipped to cope with the problem of costs, will enter the field and thus again a new class of marginal producers will be created.

It follows therefore that in economics the marginal producer is an important personage, rivaling the marginal consumer. The one is least anxious to sell and most anxious for a high price; the other is least anxious to buy and is insistent upon a low price. Figuratively speaking, these two people meet in the world's markets, do their best to circumvent each other, higgle and haggle and bargain, accuse each other of various unfair practices—and the outcome of all their dickering and bickering is the market price.

It goes without saying that no man would like to admit that he is a marginal producer; it would seem to be an admission of incompetence or stupidity. Nor do marginal consumers advertise themselves as such lest they be suspected of meanness and stinginess. In reality these two important classes in any community fight out the price-fixing battle, not only without knowing one another, but even without knowing that they are engaged in it. The marginal consumer fights when he walks out of a store without buying because the price is too high; the marginal producer fights when he shuts down his factory and curtails the output, virtually saying to the consumer, "If you won't pay my price, you can't have any more goods from me."

4. *Costs when competition is free.*—In the foregoing discussion freedom of competition has been assumed, men being free to enter any industry which offers satisfactory returns. But this should not be understood to mean that there is any large body of capital standing ready to enter an industry at an instant's notice as soon as a prospect of a satisfactory return appears. For several reasons capital and labor cannot always be advantageously transferred from one industry to another. In the first place, in many industries different kinds of skilled labor are required, and the supply of this is usually limited. In the second place, the business manager of many an industry must be a man possessing not only executive ability but also technical knowledge, and the number of such men is limited; in fact, such men are usually well employed. In the third place, many

industries are dominated by such large combinations of capital that a newcomer is at a disadvantage in the purchase of raw materials and in the transportation of his products, not to mention the fact that his big competitor enjoys the advantages of large-scale production, can usually increase its output easily, undersell him, and finally drive him from the market.

In so far, however, as competitive conditions do prevail, the market price of an article tends to coincide with its highest cost of production. An agricultural product like wheat furnishes a good illustration. When wheat sells at $1 a bushel, no farmer will knowingly sow it on a field where its cost will exceed that sum. If its price advances to $1.50 because of an increase in the demand for it, without a corresponding increase in the supply, farmers will then cultivate it on fields where, because of less fertility or more distant location, the cost is near that figure. If the price rises to $2, still poorer and more distant land is brought under cultivation.

Let us suppose that there are ten different varieties of wheat land in a certain country, calling the best No. 1 and the poorest No. 10, and let us suppose that $2 a bushel covers the cost of producing wheat on land No. 8. If the demand for wheat is such that wheat can be sold at $2, land No. 8 will be cultivated; but if the price falls below $2, the cultivation of that land will cease. Thus variations in the supply of wheat which affect value are due to changes in the supply of wheat produced on the poorest land under cultivation. For this reason economists call such land marginal land and hold that the price of wheat in the long run tends to coincide with its marginal cost, that is, with its cost of production on the land least fitted for its cultivation.

The reader should note that the value of wheat is not determined by the cost of its production. No consumer pays $2 for wheat because it costs that sum. Nor is any producer, or set of producers, able to fix the price. The price is the result of competition among the buyers who want the goods, and of competition among the producers who are unwilling to produce unless they can make a profit. In a sense this competition is involuntary and unconscious; the consumer is simply seeking to get the most satisfaction out of the expenditure of his income; the producer is thinking merely of compensation for his labor and enterprise. The consumer will not pay for an article more than it seems worth to him. The producer will not make the article unless he can sell it at a profit. As a result of this involuntary competition among consumers and producers, we have changes in the demand for and supply of goods and, consequently, changes in their values.

5. *Monopoly costs and prices.*—When a concern has a virtual monopoly in the manufacture and sale of any article, the competition of other producers being a negligible quantity, it is able by the regulation of its own output to exercise great command over the value and market price. An absolute monopoly can,

of course, exact any price from a consumer that it pleases to ask, but it cannot compel the consumer to buy. If it wishes to make the most money possible it must give heed to consumers' wants, whims and caprices. It may regulate supply, but it cannot control demand. For this reason it is wrong to think of monopolistic prices as being dependent entirely upon the will of the monopolist.

A monopolistic concern is, of course, in business for the purpose of making money. If it is a corporation its directors wish to be able to pay large dividends to its stockholders. The aim of monopoly is the greatest possible profit, not the highest possible price at which some of its goods may be sold. In determining the price that shall be asked, the manager of a monopolistic business thinks not of the cost of production but of the possible sales and profits at different prices. He is anxious to find the price that will yield the maximum net profit. That price may be a low one, not far above the cost of production, for at the low figure the demand may be enormous; or the price may be 100 per cent above the cost and yet the sales be sufficient to yield a profit larger than if the price were lower. A monopolist is not much concerned about the amount of profit per article; the largest possible net income is what he wants, and he is quite ready to offer his article at a low price if in that way he secures the desired result.[1]

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[1] On account of their potential influence upon prices, monopolies are feared by the public and are generally subject to governmental regula-

6. *Regulation of supply.*—The regulation of the supply of an article produced under conditions of free competition is manifestly a difficult matter. The greater the number of competitors, the greater the difficulty. If there are only a few competitors, each can get some knowledge of the plans and of the capacity of the others and so regulate his own output that a surplus product shall not be thrown on the market. But when the number of competitors is large, each works more or less in the dark, being uncertain both as to the strength of the demand and the amount of the forthcoming supply.

Since it is most important that the supply of an article shall not exceed the demand at a price which will net a profit, nearly every industry has its trade paper, which seeks to keep its subscribers informed as to the market conditions and prospects and as to the probable output. The value of these trade papers is attested by the fact that in the last thirty years they have become the most lucrative branch of journalism.

Of monopoly we might say that it is able to examine the present with a microscope and look at the future thru a telescope, so that it is able to regulate its output in such a way as to protect itself against the ebb and flow of demand. But competition is blind; it must either depend upon the eyes of trained observers or grope its way thru the industrial labyrinth, guided almost solely by instinct.

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tion. The subject is fully treated in the Modern Business Text, entitled "Business and the Government."

The mining of gold furnishes an excellent illustration of the results of unrestricted competition. Most of the world uses gold as money; and its value tends to fall and prices to rise, as the supply increases. No man knows today what the value of money will be a year hence. Its value is not determined by any legislative body nor by any mint. It depends wholly upon the supply of money in relation to the demand for it. Since 1897, because the supply of gold increased faster than the demand, its value has greatly fallen; and the prices of commodities in general have greatly advanced, causing much distress to people of small and fixed incomes. If the mining of gold could be made a governmental monopoly, all governments concerned acting in harmony, the annual output might be so regulated as to prevent any great change in the value of gold, so that the prices of commodities in general would never greatly decline or advance.

In this section I have spoken of a part of a product as being a surplus. The reader should be careful to notice that this word, which is much used in business, does not mean an excess of production above possible consumption. It means a greater surplus of goods than can be sold at a certain price. In discussions of foreign trade it is often said that the United States exports its surplus cotton to Europe. This so-called surplus is merely that part of the supply of cotton which the people of the United States do not wish to buy at the price which prevails in the world's market.

7. *Law of increasing disutility.*—Every man who has done any work requiring muscular effort knows the ache of labor, and if he has worked continuously for several hours he knows that the ache is greater at the end than at the beginning. All animals love activity if it can be followed by rest when weariness comes. The man who hoes half an hour in his garden every morning for the sake of exercise doubtless gets pleasure out of it, but let him hoe all day and he will know what the economist means by the pain of work.

This pain the economists call disutility, for it is the opposite of the pleasure or satisfaction one gets from a utility. Unfortunately to a man who has never worked we can give no idea of the meaning of the pain of labor. We might as well describe a landscape to a man who was born blind, or one of Mozart's symphonies to a man born deaf. All we can say is that pain is a state of consciousness which we do not wish to have repeated.

We have already learned that utility, or enjoyment, tends to decrease with repetition; and we have given that fact general expression in the law of diminishing utility. In the case of pain the opposite is true. The longer a man saws wood the more irksome it becomes. The performance of any task, even tho agreeable at first, finally becomes tedious and positively painful if continued long without interruption. Pain from its very nature seems to increase so long as the cause is present. A toothache that is hardly noticed in the morning becomes unendurable in the afternoon, altho a dentist might find that the nerve was not exposed more at one time than at the other. This tendency of pain to increase as a result of repetition, economists call the law of increasing disutility.

This law has some relation to value; for all goods are the product of work, and their value must be sufficient to compensate the worker for the pain or disutility that has been voluntarily endured. Men dislike long working days, for the pain of labor is much greater after eight hours than after six. Hence, if possible, men avoid occupations which give them little time for rest or recreation. That is one of the chief reasons for the increasing scarcity of farm labor, the work often beginning at sunrise and not ending till dark.

8. *Variations in cost.*—In some industries costs of production may remain stationary for a considerable period of time. Then, as a result of competition, the producers who survive in these industries tend to become equally proficient; and a uniform cost is approximated, in accordance with which the market price is determined thru the regulation of the supply. In such industries a great increase in the output is often possible without any increase in the cost of production per unit.

In other industries, notably the extractive, we have already shown that the law of diminishing returns applies. Hence as population increases, costs tend to rise unless checked by improved methods of production and transportation.

In many of the manufacturing industries, under certain conditions a law of increasing returns prevails; and the tendency, therefore, is toward lower costs and prices as consumption increases. The causes are various. Among the most important are the advantages of large-scale production, of which one of the most important is the manufacture of machinery in standard parts. A factory manufacturing only 1,000 automobiles is evidently at a disadvantage with the factory manufacturing 500,000. Furthermore, as an industry increases in volume it becomes more attractive to skilled labor; and its work, therefore, is more efficiently done. At the same time the very size of the industry furnishes an incentive to the manager to improve his organization to the utmost and to introduce economies which would hardly seem worth while in a smaller establishment.

There is a limit, of course, to the profitable growth of any industry under a single management, for there is a point beyond which the difficulty of superintendence becomes insurmountable. There is, furthermore, a limit to a man's executive ability. Great executives in business are not numerous; and altho they can delegate much of their authority and responsibility to others, yet experience has proved that too heavy a burden may be placed on the shoulders of any man however great his genius for organization and control.

9. *Joint cost.*—Numerous articles are called by-products because they are produced, not in the first instance because of their own utility, but in connection with more important articles. For example, the leading products of the Standard Oil Company are refined petroleum, or kerosene, and gasoline; but in the manufacture of these articles, numerous other articles of less importance and value are produced, such as candles and vaseline. The demand for cattle is a composite demand for hides and beef. Neither of these could be considered a by-product unless the demand for one was so great that it could be sold at a price so high that the price of the other would be a negligible quantity.

Does the value of two articles produced jointly tend to coincide with their joint cost on the margin of production? Or is the cost of one more important than the cost of the other? It all depends on the strength of the demand. Take a steer, for instance. If there is a strengthening demand for beef and its price doubles, while the demand for leather does not increase, there will be an increase in the production of beef and necessarily also an increase in the supply of leather. Leather will then weaken in price while beef is advancing, and if the demand for beef keeps on increasing, it is conceivable that leather might become exceedingly cheap. The ranchman, of course, would think only of the price he could get for his steers; it would not matter to him whether the demand for them was chiefly for hides or for beef.

In the long run, when competition prevails, the combined value of a product and all its by-products must tend to equal their joint cost. But at any time the market value of each is determined by the strength of the demand for it in relation to its supply, and a rise in the value of any one of them may cause some increase in the output of all.

10. *Marginal utility compensates for marginal cost.*—No sane man will work to produce something unless he expects satisfactory compensation in its enjoyment. In economics this amounts to saying that no man will produce an article unless he can sell it at a price covering the money cost of production plus a satisfactory profit.

Let us take a simple illustration from rural life. Some children go berrying solely for the pleasure of eating the berries. They get great enjoyment out of it the first hour, a little less during the second hour; and by the end of the third hour their enjoyment of the berries has declined and they have become so tired that they decide to rest before going home. In the language of economics the cost of berries to them has begun to exceed the utility of berries. Theoretically and strictly speaking, a child would stop picking berries the very moment the pain of the effort was not counterbalanced by the pleasure of eating them; or in the language of economics, when the marginal utility of berries had declined and the cost of production had increased until the two were equal. In this simple illustration we see at work the very forces which determine market prices.

Let us briefly consider the market price for potatoes. They are an agricultural product that tends to increase in cost when any increase in supply is called for. If they are selling at $1 a bushel, there are certain grades of land on which farmers will produce potatoes, but no farmer will willingly produce them on land where their cost exceeds $1 unless he has good reason for believing that the price in the following winter will be much higher. In normal times most staple articles like potatoes, pork, corn and beef, have a normal or customary price, producers having learned by experience to make a pretty accurate forecast of the demand: and the one thing they are most anxious about is that the supply of any article shall not be so great that its price must fall below the cost of production; in other words, that its marginal utility shall not be less than its cost.

Hence wise producers are slow to increase their output of any article unless there is evidently an increase in the demand for it; or, in other words, unless there has been a rise in its marginal utility sufficient to counterbalance any increase in the cost of production.

Practically, of course, any increase in the marginal utility of an article finds expression in a rise of the market price; and when that rises above the cost of producing any portion of the existing supply producers begin to plan larger production even tho their costs increase.

So as a result of our examination of value from two points of view, the consumer's and the producer's, we may say that it is such a ratio of exchange as tends to make the marginal utility of a good just compensate for its marginal cost. When a good exchanges on such a basis it is said to possess normal value. When any good sells much above its normal value, we must find the cause in abnormal conditions, such as war, monopoly, or some freakish change in demand.

11. *Producer's surplus or differential gain.*—Producers who enjoy special advantages evidently make a bigger profit than those on the margin of production, whose costs are the highest. If a manufacturer produces an article which commonly sells at $2, at a cost of 50 cents, he is evidently making a profit of $1.50 on each article. But if other manufacturers have costs close to $2 their profits are barely sufficient to enable them to continue production.

That part of any producer's profit which is in excess of his cost of production plus a reasonable profit, is called by economists the producer's surplus or differential gain. It is due to the differences between his advantages and those enjoyed by competitors who are working at the greatest disadvantage. As we shall see later, the rent of land has its origin in the producer's surplus.

Some readers may be disposed to question the assertion that value is determined by unconscious competition among marginal consumers and producers. It may seem to them that the highly favored producer, the one with low costs, will be quite ready to accept a low price provided by so doing he can quickly market his product. Or it may seem that the impatient consumer with plenty of money in his pocket will promptly pay almost any high price that is asked, and that neither buyers nor sellers will wait for the outcome of the conflict between the marginal consumer and the marginal producer.

This view is entirely erroneous because it ignores three important facts: first, that most men like to sell their services and the products of their labor at the best price they can get; second, that most men like to gratify their wants with the least expenditure of money or effort; and, third, that market prices are determined, not by the actual producers and consumers, but by professional traders who represent them. The trader's important work we shall discuss in the next chapter.

REVIEW

Why does value or price in the long run tend to coincide with the cost of production?

Who is the marginal producer in industry? How does he aid in determining the market price?

Why is it impossible to transfer labor and capital from one industry to another on a moment's notice?

Does an absolute monopoly necessarily lead to high prices?

What is the law of increasing disutility and what relation has it to value?

Discuss the statement that the value of two articles produced jointly tends to coincide with their joint cost on the margin of production.

CHAPTER IX

VALUE AND THE TRADER

1. *Importance of exchange.*—Exchange is perhaps the most conspicuous phenomenon in modern industrial and commercial civilization. If a visitor could come to the earth from a planet where there was no buying and selling, each person producing all that he consumed, he would be amazed and dazed by our complicated system of markets, railroads, telephone and telegraph lines. On his planet there would be no such things, for there would be no need for them. People are so accustomed to exchange that they give little or no thought to its advantages. Some indeed are so foolish as to think that the mere trader, the merchant, is a parasite living on the labor of others. They do not realize that if they should eliminate the trader they would destroy the present demand for labor, make the division of labor impracticable, and bring on industrial chaos.

The first critics of exchange condemned it on the ground that only one of the two parties could make a profit, the other being cheated. They held that an exchange could be fair only in the supposedly rare cases where the articles exchanged were equal in value. Their error lay in the crude supposition that value is something inherent in an article and that therefore, it must be the same to all men. We know that men's valuations of goods differ. I may have something which I value but little, tho you may value it highly; and you may possess an article which I value much more than you do. Evidently here is an opportunity for an exchange in which both will make a profit.

But we need not take space to indulge in arguments to prove that the modern system of exchange is justified by its advantages. We need only call attention to the fact that without it there could be no division of labor, no specialization in industry and no specialization in the development of human talents, and that the resources of a country could not be developed to advantage. Exchange has made England rich and has made possible and profitable the utilization of her great resources in coal. Exchange permits Italy and France to specialize in vineyards, Australia in the pursuits of agriculture, and the United States and Canada in the numerous and various industries for which they are best fitted. The French physiocrats who assumed that the trader was a burden on society were certainly mistaken.

2. *Transportation and communication.*—The highly developed modern systems of transportation are the outgrowth of exchange. They are its necessary agents. Without the aid of the railroad and the steamship, the production of wealth could not possi-

bly go on as at present, for the goods produced could not find consumers. We must, therefore, think of them as productive agencies and of all their employes as being actively engaged in the production of wealth.

The reader must get rid of the popular notion that only that labor is productive which is engaged in the manufacture of tangible commodities or in the extraction of desired articles from the soil. Railroad managers are open to criticism if they are wasteful of capital or human energy, but so are the farmer and the manufacturer. They are all equally liable to be inefficient, and any one of them by inefficiency injures himself and causes a social loss.

The development of the exchange system or exchange civilization has in all its stages kept pace with improvements in means of communication and transportation. In the beginning there was only the human voice and the human back—usually the woman's back—and trade was necessarily small in volume and scope; the trained dog, the ox, the donkey, and perhaps the horse followed; dugout canoes and rowboats came next, and then the first professional trader appeared, but he could not travel far or deal with many customers. The sailing vessel gave birth to foreign trade; but its movement was slow and its cargoes possessed little variety, for the people of different parts of the earth knew little about one another's wants and tastes. The steam engine, the railroad and steamship, furnishing quicker methods of communication and transportation and bringing the different peoples into closer relationship, broadened the field of exchange and started the evolution of modern industry with all its specialization.

The telegraph and the cable have made all countries of the earth a single, industrial and commercial unit. The producer of shoes in Lynn, Massachusetts, or of cutlery in Sheffield, England, or of olive oil in Tuscany, Italy, no longer knows his customers; they are scattered all over the earth.

3. *Subjective valuations measured by exchange.*—Adherents of the Austrian school of political economy use value in its subjective sense, meaning by it the importance which men attach to a good as a means of satisfying their wants. In this sense value and marginal utility are virtually synonyms and the exchange value of a good is its objective measurement in comparison with other goods.

In this Text the word value is used more nearly as it is in the business world, meaning power in exchange. Nevertheless it seems worth while to call the reader's attention not only to the different uses of the word, but to the fact that different men value goods differently and that market values or prices are the outcome of these different subjective valuations, tending, as we have seen, always to coincide with the valuation of the marginal group of consumers.

4. *Trader's service.*—The trader or merchant is not himself a producer of material goods, nor is he

a producer and consumer of the goods which he buys and sells. His buying and selling as a trader are entirely independent of his preferences as a consumer. He trades or deals in the commodities purchased by others, not because he himself wants them, but because others want them and because he is able thru his service and forethought to sell them, as a rule, at a price above that at which he buys them.

In various ways the trader adds to the utility of goods which he handles. The wholesaler collects into one establishment goods of a certain kind and thereby makes them more accessible to the retailer, thus giving them additional place value; the retailer in his turn adds to their place utility or value by making them more accessible to the consumer. These traders and others of the same sort, such as the commission merchant, stand between the farmer or manufacturer and the ultimate consumer and are commonly referred to as middlemen. When competition is free no one of them can make an extraordinary profit unless he has extraordinary talent as a trader.

The trader's most important service is the part he plays in the fixing of market value and price. In doing this he does not add to the utility or value of the goods he handles, yet he performs a great social service, for he furnishes to both producers and consumers price standards with which they can measure the value of their possessions and by the use of which they can make exchanges if they wish without the intervention of the merchant or professional trader. It is the trader who gives us market prices, and it is upon these that people rely in their daily buying and selling.

5. *Trader indispensable.*—On account of the great rise of prices during the years which followed 1897 there has been much complaint in newspapers and magazines about the high prices exacted and big profits made by the middleman and much agitation in favor of his elimination. It is exceedingly doubtful if the needs of society can be satisfactorily served without the aid of the middleman. Doubtless some dealers have been guilty of extortion and have taken advantage of the ignorance and necessities of their customers. But such traders were no more numerous after 1897 than they were before, and we are certainly not justified in holding the trading classes responsible for the increase in the cost of living. This can be fully explained by other causes, especially by the cheapening of gold due to the increase of the gold supply, by the increase of population, which under the law of diminishing returns has lifted the cost of nearly all foodstuffs, and by war conditions.

Some manufacturers make a specialty of dealing directly with the consumer. They advertise extensively and promise low prices because the middlemen have been eliminated. There is without question much room for further economies in the exchange process, but the world cannot get on without the trader. The manufacturer who sells direct to the consumer does not really fix his price. He is governed by the market price even tho he sells a trifle below it.

6. *Different classes of traders.*—There are many classes of traders, but for our purpose they can be grouped under the following heads: speculators, wholesalers, commission merchants, retailers. All these have a part in the price fixing process, and it is not worth while to try to determine which one is most important.

The retailer is in direct touch with the consumer and knows, therefore, the existing demand better than anybody else. By means of his orders he transmits his information to the wholesaler or commission merchant, who thru his orders transmits it to the producer.

The speculator in various ways gets possession of the information and decides that the prices of certain commodities are destined to undergo considerable change. If he decides that a rise of price is indicated, he buys from anybody who will sell, expecting to sell later at a profit. If he foresees a fall in the price of any article, he proceeds to sell it, even tho he has none in his possession, confident that he will be able to buy it at a cheaper price when called upon for delivery.

7. *Value determined by competition among traders.*—Let us for the moment forget these different groups of traders and think of traders in general as embodying all the qualities and rendering all the services of all the groups, and let us take flour as a typical commodity, supposing its present price to be

$8 a barrel. Certain traders will believe that price too low and their belief will be based on a study of the consumers' demand and the outlook for the next crop of wheat. They believe that both wheat and flour are destined to rise in price. They do not think in terms of marginal utility or marginal cost. Their theory of value is the simple law of demand and supply, the truth of which they have learned thru experience and observation. They feel confident that an increasing demand for wheat, combined with a shortage in the supply, will lead to higher prices. In the language of economics, they believe that the marginal utility of wheat and flour is destined to rise and that the marginal consumer will soon be willing to pay a higher price for it. The traders holding to this view buy wheat and flour in order that they may sell it later at a profit. Popularly these traders are called bulls.

Opposed to the bulls are the bears, who are skeptical about the predicted advance in price. The traders in this class think they have more accurate information than the bulls, or that the bulls fail to take into account certain important circumstances, or that the bulls are placing too much reliance upon pessimistic returns from Russia or Argentina, or that they fail to make proper allowance for the fact that a slight advance in the price of wheat flour would cause many people to substitute cornmeal. Whatever the reason, many of these bears are ready to sell as the bulls offer a higher and higher price.

Before the end of the day half of these traders may have been bulls in the morning and bears in the afternoon, and the net result of their day's work may be that their purchases equal their sales. Some traders, because of sound judgment or good fortune, will find that their average purchase price is less than their average selling price and that they, therefore, have made a profit; others would make a corresponding loss.

All these traders are looking for a profit and a description of their operations makes them seem to be mere gamblers, betting on the course of prices and performing no service for society. This is a mistake. These traders have been matching, not pennies or dollars, but intellect against intellect, judgment against judgment, and the net result of their struggle has been the fixing of the market price of wheat or flour.

The bull represents the marginal producer; he believes that conditions warrant a higher price and he fights for it. The bear stands for the marginal consumer; he believes that prices will go lower, or that any further advance is unwarranted, and is willing to risk money in support of his judgment.

8. *Produce and stock exchanges.*—This competitive war between opposing groups of traders in all its fierceness and intensity, each man fighting for himself, may be watched in progress almost any day on the floors of stock and produce exchanges in the large cities of Europe and America.

A produce exchange affords a meeting place for those who wish to trade extensively in such staples as wheat, corn, oats, cotton, pork and beef. Buying and selling in such exchanges must be done in accordance with established rules laid down by the governing board. In most exchanges it is possible to buy and sell "futures," by which is meant that during March a man may enter into a contract to pay a certain price for wheat delivered to him at the end of April or May, or even a later month. Commodities are graded, and the grade delivered must not be inferior to the one for which the contract calls.

On the floors of the produce exchanges the market prices of nearly all staple articles are fixed. These are not the wholesale prices, but they influence the wholesaler in making up his list, and changes in the wholesale prices finally affect the prices which the retailer exacts from the consumer.

The stock exchange, called *bourse* in Paris, *Börse* in Berlin, provides a meeting place for men who wish to buy or sell productive capital. The capital may be invested in railroad or industrial corporations and will be represented on the exchange by stock certificates or by mortgage bonds.[1] Since the return upon the bonds is fixed at a certain per cent, they are not commonly objects of speculation, being bought by investors who have surplus capital on which they wish a sure return. The prices of stocks, however, vary greatly because of present and prospective changes in the earning power of corporations. Certain professional traders, therefore, speculate in stocks just as others do in cotton, wheat and other staple commodities.

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[1] Full details of the operations of these exchanges are given in the Modern Business Text on "The Stock and Produce Exchanges."

9. *Speculator's service.*—There is a popular notion that speculation is an unmixed evil and that the speculator is no better than a gambler, betting on the future prices of articles instead of on the turn of a card. This notion is due in part to popular ignorance in regard to the real nature of speculation and to the fact that much of the buying and selling on the exchanges is done by amateurs who operate thru brokers.

The trader who deserves to be called a scientific speculator is not a gambler. He backs his judgment with his money just as does the miller when he buys wheat, or the merchant when he lays in a stock of goods. The difference between the ordinary merchant and the scientific speculator is only one of degree, the speculator merely taking a greater risk. His problem is more intricate and difficult than the retailer's or the wholesaler's. Most people think he is taking a gambler's chance merely because they do not have the faintest idea of the nature of his business problem.

As a result of the speculator's operations the prices of staple articles are much steadier than they would otherwise be. He foresees changes in market conditions long before the consumer or the retailer or even the wholesaler, and begins at once to buy. If his judgment is sound, a gradual advance of price begins and a consequent gradual curtailment of consumption; but for him, sales would have gone on at the lower price until the new conditions actually prevailed, when prices would have suddenly jumped to such a height as to cause distress among consumers and dissatisfaction among those producers who had already sold their supplies. The price, it should be noted, would go to a figure higher than it would be permitted to reach under the influence of speculation, for consumption during the preceding months would not have been curtailed by any advance in price. Thus speculation tends to conserve the supply or stock of an article for months before a shortage is indicated, and so tends to prevent sudden and great fluctuations of price.

On the other hand, if the speculator foresees a great increase of supply without a corresponding increase of demand, he becomes a bear and is willing to sell at the present market price. If the pressure to sell exceeds that to buy, the price gradually declines; and as a rule consumption increases so that the price does not fall so low as it would have fallen if speculation had not caused it gradually to decline for some time before the supply on the market had actually been increased.

It is needless to prove here that society is benefited by stability of prices. Every consumer knows the annoyance occasioned by a sudden advance in price, and every merchant and manufacturer knows the damage that can be done by a sudden drop of prices. The professional trader, when engaged in speculation, is performing a useful task and is really earning the profit which he makes.

Not only does he fix the prices of most of the raw materials which are made into the necessaries, comforts and luxuries of life, but he also helps to save the consumer and the dealer from the shock of sudden and great fluctuations.

The word speculation, by the way, comes from a Latin word *speculor,* meaning to view, to contemplate. Etymologically, therefore, the speculator may be regarded as society's lookout, standing high above the mass of traders—he is in fact a sort of economic forecaster.

10. *Evils of speculation.*—The foregoing praise of the speculator will doubtless irritate some readers. They know men who have been ruined by speculation just as they know other men who have been ruined by drink, and they condemn speculation and alcohol in the same breath.

There can be no question that much of the buying and selling on the exchanges of any country is pure gambling, or that the exchanges are sometimes made use of for the accomplishment of evil purposes. The governing bodies of exchanges are all perfectly well aware of the evils connected with speculation and, as a rule, are doing their best to abolish them. But some of them have their origin in certain weaknesses of human nature and can never be abolished.

The exchanges undoubtedly possess great charm to men with a taste for gambling, but in the long run the mere gambler on an exchange, the man who takes chances and relies on tips or so-called intuition and does not make the most thoro study possible of the conditions governing demand and supply, faces certain ruin, for the chances are against him. He may bet, for example, that the price of wheat will advance and buy wheat on a margin, borrowing from 80 to 90 per cent of the purchase price. There are three things which the price of wheat may do: It may remain stationary or it may decline, in either of which events he loses; or third, it may rise, in which case he may sell at a profit. An amateur trader on a stock or produce exchange cannot compete with the professionals. They need not seek to rob or ruin him, he will do the trick himself; he might as well hand them his money at the start and save himself a lot of worry.

Certain members of an exchange, often in alliance with outsiders, sometimes attempt to "corner" a commodity by buying up all the available supply, hoping to be able to dictate a high price to the consumer. This is an evil practice and is prohibited by law in the United States and some other countries. Men seeking to corner a commodity are evidently aiming at the advantages of monopoly and are planning to sell a commodity at an abnormal price.

Sometimes the same man or set of men create an artificial market for a commodity or stock in which they are interested by buying thru certain brokers and selling thru others. These are known as "wash sales" and are contrary to the rules of most exchanges, for their evident purpose is to deceive the investor or to promote the sale of the stock of a corporation at a price not justified by its condition and prospects.

These and other evils connected with speculation are fully treated in the Modern Business Text on "The Stock and Produce Exchanges," and need not be considered at length here. It is enough now to have the reader understand that there is a clear distinction between what might be called true and false speculation, between the scientific speculator and the mere gambler. The rewards of successful speculation are great because the risks are great; and it is not strange that these great rewards, which seem to the outsider to be earned so easily, tempt all sorts of foolish people to try their hand at the game. The presence of these people in the market, these lambs, as they are called, offers shrewd and unscrupulous men a chance to make money thru deception and various sharp practices. We cannot on this account condemn speculation or the exchanges. Men have been known to use the church for evil purposes, to start a store for the purpose of collecting fire insurance, to join fraternal organizations for purely commercial purposes, to don the uniform of the Salvation Army in order to get money from the charitable. The greater the influence and reputation of any institution, the greater the risk that evil men will try to use it for their purposes.

11. *General rise of value impossible.*—Before we pass on to the consideration of other subjects it is perhaps well that the reader should be warned against the common but fallacious notion that under certain circumstances there may be a general rise or decline of values. The absurdity of this idea will be evident to the reader when he considers the fact that value is an exchange relation. A rise in the value of any good implies necessarily a corresponding decline in the value of other articles.

Objects possessing value may, of course, increase in number, so that it might be right to say that the total value embodied in material objects at one time is greater than at another. This is only another way of saying that the amount of wealth has increased.

In the same way it is possible for the quantity of utilities or objects possessing utility to increase. As man becomes more civilized, his wants becoming finer and more numerous, the total sum of utilities available for his enjoyment increases.

When people speak of a general rise of value they usually have in mind a general rise of prices. That is something quite possible. As money grows cheaper because of an increase in its supply or because of a lessened demand for it, the prices of goods in general tend to rise. This rise of prices is in fact the visible evidence of the cheapening of money. To say that money is getting cheaper is the same thing as saying that prices in general are rising. This important subject of money and prices will be considered in the next few chapters.

REVIEW

What were the early objections to trading? What are the advantages of a modern system of exchange?

How does the trader add to the utility of the goods which he handles? What is his most important service? Name the various classes of traders and indicate the place that each plays in business.

What is the use of a produce exchange? What kind of prices are fixed upon it and what influence have they? Define a "future."

In your opinion what services does the speculator perform?

Will the statement that under certain circumstances there may be a general rise or decline of values, stand the test of analysis?

CHAPTER X

MONEY

1. *Mechanism of exchange.*—The first form of exchange was that of goods or services for goods, which is termed barter. Such a clumsy and unwieldy procedure could be used only in a primitive community where wants were few and goods were not of great variety. The inconvenience of applying this method is well illustrated by the attempts which have sometimes been undertaken to revive it. Under such headings as "Mart and Exchange" there have been journals which fostered such an effort.

When we read in such columns the advertisement of a boy who has a collection of postage stamps which he would like to exchange for a tennis racket we see at once the difficulties of the situation. The boy can perhaps readily find another who wants the postage stamps, but he may not have a racket to exchange for them. Nor is it likely that the estimate of the value would be alike on the part of the two owners if finally they should be brought together. Swapping involves the time-honored usage of "something to boot."

A very different state of affairs results after money has come into general use. Trades can now be made in terms of money with far greater ease, since every-one wants money. But many exchanges are made without the use of money. The seller is content with a promise to pay money, which serves in many respects the same purposes.

Thus three stages of exchanges appear, based respectively on barter, money and credit. Money and the services which it renders in the world of affairs will be considered in some detail in this chapter, while a subsequent chapter will treat of credit. Price is shown in the preceding chapters to be related to value. It is also definitely related to money and credit, and after these terms have been explained it will be necessary to go back and take up the mutual relations of money, credit and prices.

2. *What is money?*—To some it might seem almost superfluous to ask, What is money? The word is used so frequently in daily speech that its significance might well be deemed a matter of course, but in fact the word money is used so loosely that it means many things. To the banker money is the medium of exchange that serves as the basis of commercial obligations. To the workingman the word means anything which buys products, and to such a person a check is money. Another person may include in the phrase every device that does money work, and again someone may say that it is only the gold coin of the monetary standard. A rather careful answer to the question, What is money? is necessary if confusion is to be avoided.

It is impossible to frame a definition on the basis of the material of which the money is made. Money may be either gold or silver; the material of which money is made is a secondary matter. Dr. Arthur T. Hadley, Yale University, says, "Money is best defined as a thing which by common consent of the business community is used as a basis of commercial obligations." Horace White declares, "Money is anything that serves as a common medium of exchange and measure of value." Dr. David Kinley, University of Illinois, says, "that part of the medium of exchange which passes generally current in exchange and settlement of debts, without making the discharge of obligations contingent upon the action of a third party." Money is the valuable thing or economic good which possesses in any country or community universal acceptability as a medium of exchange or means of payment.

The distinguishing of money from the main body of wealth has the advantage of clearing up some of the common erroneous ideas about it. It is to be observed first, that money is one form of wealth among many others; second, that it is always used, not for its own sake, but for what can be secured with it—consequently, we may have too little or too much of it, according to the amount of money work there is to do; third, that to hoard money is to misuse it, for by nature it is expected to circulate; and, fourth, money is not taken away from a country by trade, but is rather retained thru trading.

The definition of money is inevitably modified by the point of view from which the author writes. Thus, money may be discussed in the scientific sense with special reference to its work as a standard of value, or from the popular view as a means of purchasing. The enumeration might well extend thru the figurative, financial, legal and national banking senses of the term. The approach taken in this chapter will be the analytical. What does money do?

3. *Functions of money.*—As a matter of convenience the functions performed by money may be divided into: (1) those which are essential, (2) those derived from the essential functions, and (3) those which are contingent. The use of money brings out its essential functions as a medium of exchange and a standard of value. The derived functions are found in the fact that money acting in the capacities just cited must, as a matter of course, be a standard of deferred payments, transfer values from one person to another, and act also as a store of value. Now and then you hear of a man's buying a diamond in order that he may possess a permanent value that can be relied upon in time of need. So money, when well established in a scientific way, acts as a store of value. But beyond this, money is constantly doing other things. It acts as a means of distributing social income, as a basis of the credit system, and as a means of giving capital a mobile form.

4. *Medium of exchange.*—The simplest duty which money performs is to act as a medium of exchange, the go-between in trade, making it possible

for seller and buyer to obtain what they desire. This it accomplishes by virtue of its universal acceptability. Were there no legally recognized medium of exchange the needs of trade would create one which would by common consent serve its purpose. Many objects have in times past served this purpose. Some, it would appear, had a purely conventional value; but for the greater part they were objects possessing some inherent utility which made them generally prized. Therefore, as soon as they become the recognized means of making payments this general acceptability is universal.

Of all the substances which have served as money none has given greater satisfaction than gold and silver. This is due to certain physical qualities, and to certain conditions of their production. They are for the most part easily divisible into parts of uniform quality, and when so divided the sum of the parts is equal to the value of the whole before division took place. They wear well and keep their qualities intact for long periods. Moreover, they possess a stability which comes from the regularity of their production. From year to year the product of gold, for example, varies but little. The new product is added to the stock already in existence and the changes in this stock from year to year are very insignificant.

5. *How money effects exchanges.*—It is evident that, to be an effective instrument of exchange, money must be capable of making any payment however small or however large. The wide variety of ex-

changes which are made in daily life, from the purchase of a newspaper to the purchase of a railroad, require an instrument nicely adjusted to these various needs.

Many exchanges are not, as we know, made with money but with credit, but money must be of such a nature that it forms a satisfactory reserve for such credits. Money therefore effects exchanges directly and indirectly. These indirect exchanges belong in part to the subject of credit and will be more fully discussed under that head. They are mentioned here to make it clear that while all money is a medium of exchange, all media of exchange are not money.

The part played by media of limited acceptability, such as checks, notes, drafts and other credit instruments is of the first importance in the modern business world. It does not, however, conduce to clearness of thought to designate them currency or money of limited circulation, as has been done from time to time. In so far as the function of a medium of exchange is concerned, they are important and useful substitutes for money, but they are not money.

6. *Money as a measure or standard of value.*—The commodity used as the medium of exchange becomes naturally the measure or standard of value. Whether goods are exchanged or not, they are instinctively valued in terms of money. It is the language which everybody understands; and while it might be quite true that a certain piece of land is worth so many bushels of wheat, it would be absurd to express its

value in the United States otherwise than in terms of dollars and cents.

As a standard of value the chief characteristic which is desired of money is stability. Violent changes in value from day to day or year to year would make money a poor instrument for this purpose. Even changes in the value of the standard which are gradually wrought are of far-reaching effect in business relations. The desire for a stable standard has found frequent expression. The mercantile world has agreed to use gold as such a standard, and so far as its freedom from fluctuation from day to day or year to year is concerned it meets the situation admirably. Tho gold is the best standard that mankind has yet been able to attain, it is far from perfect; and its changes in value over longer periods of time constitute one of the distinguishing marks of economic development.

If the value of the standard fluctuates, prices vary, labor is materially affected in its purchasing power, and the business man finds himself unable to tell whether his cost of production is changing or the standard of prices varying. No more important matter confronts the people than that of a stable standard of value as the basis of their monetary system; yet any reason is apt to be given for a rise or a fall in prices rather than that a change has taken place in the standard of value.

In the fall of 1896 every village and town in the United States witnessed the gathering of interested groups on the street corners. With wonderful volubility and no little heat all discussed the same subject, the standard of value. By one side it was asserted that the standard would be changed by free silver legislation, and by the other it was declared that a continuance of the gold standard would mean a decrease in prices and a lowering of wages. The pocketbooks of all were concerned and the matter became a national question.

7. *The dollar.*—How does money serve as a measure of value? In any measuring process the first thing necessary is to establish a unit. In Washington, the Bureau of Standards has the real units of yard, foot, quart, etc. The British government keeps such standards in the Tower of London. These standards are reproduced and used by men in the business of buying and selling. The same thing must be done for money if it is to serve its fundamental purpose. Acting upon the recommendations of Alexander Hamilton, Congress declared in 1791 that the unit of measurement should be called a dollar and provided that the gold dollar should consist of 24.75 grains of pure gold. In 1834 the amount of pure gold was reduced to 23.22 grains, the present standard.

The use of the dollar as a measure comes into full practice when men say that things are worth so much in dollars. They are then expressing value in terms of something else, and that something else is, when universally accepted, money. For many years prior to the establishment of a legal monetary unit, the people of the United States carried on their business in terms of the old Spanish dollar which was very similar to the one adopted by Congress.

8. *Standard of deferred payments.*—If into the consideration of money as a standard we inject the time element, money may be designated as the standard of deferred payments. When men agree to make payments at some time in the distant future the creditor looks more carefully into the character of the money in circulation than if the transaction involved a short-term credit only. If the money of circulation is unquestioned men will not hesitate to make such contracts in terms of dollars. But if the solidity of the monetary circulation is in any way doubtful they seek to secure themselves as far as possible against any contingencies.

The German reparation indemnities are expressed in gold marks, not in marks; and in the United States, from 1861 to 1878 contracts and other obligations, especially bonds, were often expressed not in dollars but in gold dollars of a specified weight and fineness. Under such circumstances the currency in general circulation fails to fulfil all the functions of money. It is not a standard of deferred payments, since a special form of money is singled out for this purpose.

It is unnecessary to dwell at length upon the fact that money may serve as a store of value. The hoard of the miser, the accumulations of coin which the French peasant proverbially does up in a stocking and conceals in some out-of-the-way place, are reservoirs of value. Such a use of money is not to be commended, but it cannot be doubted that it is one of the uses to which money may be put.

To recapitulate: money acts first as a medium of exchange, and second as a measure of value. From these two functions are derived the facts that money also acts as a standard of deferred payments, and as a store of value.

9. *Incidental functions of money.*—The fact that money performs a number of essential functions carries with it other activities that are of great importance. Just as money meets the needs of trade by obviating the necessity of barter, so does it act as a capital distributor. The savings of one group may thru the use of money be transferred to another group by transmitting money. The second group can then engage laborers, buy products already made, and begin the erection of a building. Thru money, this second group was given power over capital goods.

Such a process goes on everywhere. In modern times the movement of capital is made thru the banks and by the use of credit instruments; but the balance against the community, when all the bank transactions have been marshalled against one another, must be paid in money.

We are much given to thinking of the social income as a matter of money, but in reality it consists of the products created in such vast amounts and in so many varied forms. Every community produces something in larger quantities than others. The city of New York is a great clothing center; in it are made thousands of suits, dresses and cloaks. Pittsburgh produces iron and steel commodities; Minneapolis makes among other things quantities of flour; Maine produces many bushels of potatoes, and North Dakota harvests millions of bushels of small grains.

These goods, with many others of all sorts and kinds, constitute the social income. The problem of distributing them calls into existence many wonderful marketing, transporting and selling devices. In the present organization of society money is the great medium thru which the distributing process goes on. Men everywhere secure money for their services and this they use to buy what they need. Going from store to store and person to person the owner of money exchanges it for what he wants and so comes into the possession of a share of the social income. This method of dividing the products of the earth has not always been in vogue; and even now in the South among some of the negroes, labor is paid for in kind. As Professor DuBois in a speech at the University of Minnesota in 1906 declared, the negro emerges into better things when he receives money wages for his work and when as a renter he can pay a fixed money rent.

10. *Metallic money.*—Metallic money is the coined money. The money of the standard is gold in the United States, as well as in most highly developed commercial lands. In the United States gold is

coined in denominations of 2½, 5, 10 and 20 dollars. In this coinage the chief role is that of the twenty-dollar gold piece, which in value has formed over two-thirds of the coinage of the United States ever since its mints were established. In contrast, the coins of the smallest denomination now coined ($2.50) represent only one per cent of the total coinage.

Silver is coined into half-dollars, quarter-dollars and dimes; and in addition the monetary stock contains a large number of silver dollars, coined almost entirely before 1904. For the smaller coins nickel and copper are used. The various experiments made, and they are numerous, show that the nations have hit upon a satisfactory selection of the metals for coin use. Durability, homogeneity, portability, ductility and divisibility are the qualities required in the metals. Gold, silver, nickel and copper mixed with alloy fill these requirements and make satisfactory coins.

The governments have assumed the function of coining not so much for the profit involved as for the purpose of maintaining at all times the accuracy of weight and design of coins. Gold coins are made from the gold purchased at assay offices. The phrase, free coinage, applies to the coinage of gold, since the gold coins are issued for a similar weight and fineness of gold. In some countries a fee is charged for coinage. This is called brassage. The owner of bullion in the United States does not wait for coinage, but receives payment at once, tho required to pay for the alloy in the coins.

11. *The Silver Dollar.*—In the monetary system of the United States the silver dollars occupy a peculiar position. They are in law, but not in fact, standard money. They are legally a full tender for the payment of debt in any amount. They are not legally convertible on demand into gold coin but such convertibility is established in fact. Their maximum amount is fixed by law and the actual monetary stock now below it was long at the maximum point. Before the Great War in the Latin union countries the five franc piece held a similar position being full legal tender but limited in amount.

12. *Bimetalism.*—The attempt to keep gold and silver coins in circulation at the same time, both legal tender for obligations, and exchangeable for each other at par, with free coinage for both metals at the ratio fixed by law, is called bimetalism. For centuries governments have tried to keep the two metals in a fixed ratio to each other. But whatever the legal procedure developed by them to do this, the commercial ratio has been one of constant oscillation.

In the United States the earlier standard was by law bimetallic; but in 1873 Congress suspended the free coinage of silver dollars, thereby making the gold dollar the sole standard of value. The Latin Union, a league of France, Belgium, Italy, Switzerland and Greece, was organized for the purpose of maintaining bimetalism. India, long on a silver basis, went to the gold basis in 1893, Japan in 1895 and other countries since that date. The whole commercial world has come to recognize the fact that it is an impossibility to hold a ratio against the results of economic forces working in the market.

The purpose of bimetalism—to establish two standards—is faced with the stubborn fact that there is but one standard of money possible at one time. The government cannot fix values by legislative act, nor have the attempts to maintain two standards by international agreements been sufficiently successful to demonstrate the desirability of such action. Despite these principles of monometalism, the advocates of government-control by agreement have been sanguine that it was possible by controlling the money demand to keep the ratio prevailing in the market uniform with the mint standard.

13. *Token money.*—When the bullion value of the coins is not equal to the nominal value they are called tokens or token coins. Such coins circulate because there is a big demand for them in order to meet the ordinary trade requirements. This offsets the fact that their value is less than the amount for which they circulate. The government does not permit free coinage, nor does it make such money an unlimited legal tender. In fact the silver coins, except the dollar, are a legal tender to $10 only and the copper and nickel coins to twenty-five cents.

On the other hand, the government redeems its token coins in the standard money. Consequently a street-car company or another enterprise that receives a great deal of change can take its money to the bank for deposit, with the full knowledge that the bank will accept the deposit since the small coins can be redeemed at the government treasury.

14. *Paper money.*—Paper money has been the cause of many financial heresies, but there is nothing mysterious about it. The wear and tear upon gold coin suggested the use of a representative money that would circulate while the gold rested in the vaults of the government. To that end a kind of warehouse ✓ receipt has been issued by the United States government, which declares that there has been deposited a given sum in gold which would be paid upon presentation of the certificates. Of a similar nature are the ✓ silver certificates representing silver dollars on deposit in the treasury and the almost extinct treasury notes of 1890 indicating that the government held silver bullion.

The real interest in paper money centers in fiat money whose value rests wholly upon the fact that the government declares it to be money of a certain denomination. Why, it has been asked, could not the government issue a paper money based upon its own authority and required to be taken in payment of debts and obligations, public and private? Is there, in essence, much difference between the problem involved in an attempt to maintain a bimetallic system and that of maintaining a paper money at par value? There is this difference, that in the case of the bimetallic system there is an economic value in the metals, while the paper money is an implied promise to pay money whose final value depends upon the redemption of the paper in metallic money. During the Civil War the United States issued large sums of paper money popularly known as greenbacks. Until 1879 these circulated below par; but the treasury then accumulated a large sum in gold, offering to redeem all notes with it. Since that date the notes have been limited in amount, and redemption of them has been a possibility at all times.

There is a third class of paper money that can be designated as credit money. Such money is a promise to pay coin and is issued by governments and banks. Usually the law requires the banks to maintain a reserve equal to a given percentage of the issue. In the final analysis such money depends upon the keeping of the promise to pay. Some of the bank money issued in the United States before the Civil War was of this character. It has a more recent illustration in the Federal Reserve notes.

15. *Credit and standard money.*—While the term credit money is in its narrower sense applicable to certain forms of paper money, more especially to bank notes issued under government authority, it will be seen that many kinds of money, apart from the standard, partake of the credit character.

Credit money exists in the form of metallic money as well as in paper money, in so far as the value of any metallic money rests upon the good faith of the government and the ability to convert it into standard money. In this sense the silver dollars and the token coins of the United States constitute credit money. When government paper money like the "green backs" attains convertibility it passes from the realm of fiat money into that of credit money. The notes of banks like those of the national banks of the United States, which have universal acceptability and which are redeemable in standard money, are a form of credit money even tho they may not be a legal tender in the payment of debt.

16. *Legal tender.*—Standard money of all countries is a legal tender which the law compels creditors to accept. Such legal tender runs no further than the authority of the government which confers it. It is not of course the legal tender quality which makes the double eagles of the United States so much desired in foreign trade.

If legal tender is not necessary for money in its international use, neither is it necessary for all kinds of money in internal use. Any form of money readily convertible directly or indirectly into standard money circulates freely, irrespective of whether it is endowed by law with legal tender quality. The essence of such money is its convertibility.

When, however, legislation gives a legal tender quality to money which is not convertible, the seed of trouble is sown. In the history of the United States, the legislative authority has made fiat money legal tender. The Revolutionary War was financed by legal tender fiat money, and this was also true in part of the Civil War. In both cases the government was a buyer in a market demoralized by its own acts. Before redemption of the notes took place, the dollar was not worth 100 cents; yet the law forced the creditor to accept such money for past debts. Much loss of property thus resulted to the creditor class.

The government's intention regarding such money, when issued on a large scale, is to force its use and so relieve the financial needs of the government. The business world begins to guess the amount of money likely to be issued and the possibility of redemption. Thus an adjustment of prices begins at once. The result, of course, is a derangement of business and a kaleidoscopic variation in prices.

Despite this invariable outcome so often noted in our own history there are those who hold that the government has unlimited power to maintain the value of paper money by conferring the legal tender quality upon it. But for every community there is a point beyond which it will not take any money. This is reached very quickly in the case of excessive legal tender issues. Depreciation follows, with baneful effects upon the business man and the wage-earner.

17. *Gresham's Law.*—One of the interesting phenomena which may be noted when two metals or two types of coins, or for that matter two different forms of any kind of money of the same kind of metal, are placed in circulation, is the withdrawal of the heavier coins or the more valuable money from circulation and the continuance of the lighter or less valuable money in the marts of trade. Sir Thomas Gresham

reformulated this idea in the sixteenth century during Queen Elizabeth's reign, when he gave utterance to what has since been known as Gresham's Law.

The law has been tersely put in this way: "Bad money drives out good money." Thus stated it applies to paper money as well as to metallic money. When competition works freely there is an effort to do the economic work at the least expense and with the largest results. On that basis a fiat paper money ought to circulate and do the money work, but the difficulty with such a suggestion is that the holders of the paper money want in the ultimate analysis something that can be converted into value. Hence there must be a value basis for money of any kind.

It is to be understood that Gresham's Law begins to work when there is more than enough of the two types of money to do the work. The circulation consists of the cheaper money while that condition exists. When business conditions are such as to demand both kinds of coins and require all the circulating media at hand, the more valuable money circulates side by side with the less valuable money. Just as soon, however, as the demand slackens, the more valuable money is withdrawn from circulation for use in the arts or for export for the settlement of trade balances.

To summarize the workings of Gresham's Law, it appears that the tenacity with which a money continues in circulation varies inversely with its capacity to do the different kinds of money work. Hence, if a money is worth less for other purposes than as money there will be no attempt to withdraw it. The more valuable money drifts into the reserves maintained by banks and the government. In this connection it is important to note that trade in itself does not lead to money movement.

This is particularly evident in the case of international trade, where the payments made are for the differences in the trade balances established by the nations. The foreigner wants money with which to buy things, and so long as he can buy with drafts based upon the credits established by the sales of his country's products in foreign lands his purchasing power is established. A balance one way or the other must be settled in the international money, gold.

Here we have one important explanation for the withdrawal of gold from circulation and its hoarding for reserve purposes in the banks. The banks in their turn protect their gold reserves by raising the rate of discount, and if this reaches too high a point the gold moves into the country from other lands and reestablishes the equilibrium. When nations maintain the gold standard in internal and external affairs, none of them can lose its monetary stock.

18. *Monetary circulation of the United States.*—On the first of each month the Secretary of the Treasury issues a statement of the monetary stock and monetary circulation of the United States. On the next page is a condensed statement in million dollars for March 1, 1922.

While this table reveals three main forms of money in the general stock, gold, silver and paper, it presents a somewhat bewildering variety of money issues in actual circulation. One form, moreover, is not accounted for, namely, the minor coinage, which is always omitted from the Treasury statements.

MONEY OF THE UNITED STATES

(Amounts in million dollars)

Kinds of money	Monetary stock	Held by U. S. Treasury as assets and by Federal Reserve banks against note issues	Money in circulation
Gold coin and bullion	3,720	1,971 [1]	1,056
Gold certificates	—	266 [2]	426
Standard Silver Dollars	360	5	67
Silver Certificates	—	—	284
Subsidiary Silver	272	17	4
Treasury Notes of 1890	—	—	1
United States Notes	346	3	342
Federal Reserve Notes	2,518	304 [1]	2,213
Federal Reserve Bank Notes	105	1	104
National Bank Notes	752	16	735
Total [3]...............	8,076	2,587	5,488

[1] Held in part by Federal Reserve Banks.

[2] Held wholly by Federal Reserve Banks.

[3] Figures given correspond to official statement as to millions of dollars, all fractions of a million being disregarded. Neither the totals nor the subtractions can therefore be proved from the figures given.

19. *United States gold money.*—It appears that over 45 per cent of the monetary stock of the United States consists of gold or full-standard money. This situation is the result of an improvement which apart from some set-back after the War has been gradual since the resumption of specie payments in 1878. Of this gold only a comparatively small part circulates in the form of coin, the great mass of it coming into

use in the form of certificates. The gold coin held in the Treasury as the reserve against such certificates does not appear in the table as a Treasury holding. While the table tells us that in the form of coin or certificates there is nearly one and one-half billion dollars in circulation it is not to be understood that any considerable amount of this is the pocket money of the people. The largest amount is locked in vaults of banks.

The reason for preferring the certificate to coin lies not only in the greater ease of handling notes and the smaller storage space required, but also in the denominations. Approximately two-fifths of the value represented by the certificates is in the denomination of $10,000; one-fourth in the denomination of $50 up to $5,000. The remainder of the value of such certificates is represented by denominations no larger than the coins themselves.

20. *United States silver money.*—Apart from the silver token coins, which are designated as subsidiary silver in the table and require no further comment, the silver money of the United States appears to consist of silver dollars, silver certificates and treasury notes. The small amount of the last named now outstanding is practically silver certificates as they are represented in the Treasury by standard silver dollars and not by bullion as was originally the case. The preference in the case of silver for the certificates rests upon their more convenient form.

When the bulky silver dollars were first coined in

1878 it was found impossible to force their use upon a people accustomed for years to a currency composed exclusively of paper money. No sooner did they leave the Treasury than the channels of trade brought them back. For years it did not appear to be possible to circulate more than eighty millions of these dollars in metallic form. The silver certificates solved the problem of circulation. At the present time these certificates do a large part of the work for issues of $5 and less. Of the total value outstanding less than one-fifth is represented by certificates of a larger denomination than $5.

We owe the presence of this money in our circulation to the attempt of our government to bolster up the price of silver with a view to reestablishing, if possible, the ratio to gold of 16 to 1 which had prevailed in our legislation prior to the Civil War. Under the Bland-Allison Act of February 28, 1878, the government was directed to purchase from $2,000,000 to $4,000,000 worth of silver each month and coin it into standard silver dollars. The government never bought more than the minimum, but as silver was declining in price it added considerably more than $24,000,000 annually to our circulation. This act was superseded by the Sherman Act of 1890 under which the government bought monthly 4,500,000 ounces of silver and issued the Treasury notes of 1890 for the purchase price.

The silver purchased under the Sherman Act was gradually coined into dollars, the process being completed in 1904. At that time and until the Great War the monetary stock of silver dollars was about 560 million dollars. During the War, under the operation of the Pittman Act there was a reduction in this stock, caused by the export of dollars to the East, and by their melting down for use as subsidiary coins. This was intended as a temporary measure, and replacement has already begun. Since no addition to the former amount is contemplated, recent operations of the Mint including the issue of the Peace Dollars appear in the light of recoinages.

21. *Paper money in the United States.*—In our monetary circulation paper is represented by government issues, issues of the Federal Reserve banks and issues of national banks. The United States notes are the "greenbacks" of Civil War fame. During the war their amount was not much larger than at present; but the population of the country was less and the demand for money, therefore, much smaller. When they were issued they were not redeemable in gold. Specie payments had been suspended both by the banks and the government. Hence their issue drove gold out of circulation.

When after the war Secretary McCulloch curtailed their amount by some forty millions of dollars, he was stopped by act of Congress, animated by the fear of the consequences which must come from reducing an inflated currency. In fact, little reduction took place, and the standard money in our currency has so grown since then that these paper issues have been overshadowed. With the resumption of specie payments in 1878 and the stationary amount of the issue, the "greenbacks" have acquired respectability.

The national bank notes are another heritage of Civil War finance. The national banking system was established with the twofold purpose of furnishing a market for the bonds of the United States, and furnishing a uniform and secure national currency in lieu of the varied and often dubious issues of the state banks. Neither effort succeeded very well until a law of 1865 placed a tax of 10 per cent upon all state bank notes issued. This tax killed the circulation of state bank notes, and many banks which had been organized under state law secured charters as national banks. Bank notes are issued by the banks against a deposit of United States bonds with the government. The law makes the investment of some part of the banks' capital in bonds of the United States obligatory, and permits a larger investment if desired. On the basis of these bonds, notes are issued to the bank which puts them into circulation.

Such money rests ultimately upon the promise of the United States to pay its bonds, and its value is therefore intimately bound up with the public credit. Of a similar nature are the Federal Reserve bank notes which must be carefully distinguished from the Federal Reserve notes. Like the national banks the Federal Reserve banks may acquire bonds and issue notes upon them on the same basis. They must, moreover, purchase bonds up to a certain amount each year, if offered for sale by the national banks that desire to get rid of their bonds and the circulation based upon them, tho the Federal Reserve banks are not required to take this full amount from the national banks if they have already purchased some bonds in the market. The law thus contemplates a gradual retirement of the national bank notes, but it is not compulsory. When the Federal Reserve banks acquire the two per cent bonds of the United States, they can change them into three per cent bonds without the circulation privilege, or they may issue notes against them. They have followed thus far both plans, but the amount of these notes outstanding is largely due to the privilege of issuing them against Treasury certificates of indebtedness.

The final element in our circulation of paper money consists of the Federal Reserve notes.[1] These notes are credit money. They are issued in the process of discounting commercial paper for member banks. Their circulation rests upon the faith which the community has in the issuing banks, and on the reserve of gold held against such notes. The law requires the Federal Reserve Bank to hold a gold reserve amounting to at least 40 per cent of the total of its outstanding notes.

For a time after the Federal Reserve system was established not all of the Federal Reserve notes were of the character described. While they were issued thru the rediscounting process, yet as the commercial paper against which they were put out matured, the banks deposited gold coin or certificates against the notes which remained in circulation and they therefore were backed by a security of equal value with the notes issued. Such an issue of notes served to make the public familiar with the notes of the new form, but did not in any sense change the currency conditions prevailing before their issue. During the Great War the greater part of the Federal Reserve notes outstanding were issued against deposits of Liberty Bonds made by member banks. Many business men used their bonds as collateral for large credit from their banks. The latter in turn deposited the bonds with the Federal Reserve Banks and accepted large issues of Federal Reserve notes.

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[1] For further information regarding these notes, see Modern Business Text on "Banking."

However, many of these loans have now been liquidated and as the system has grown older the proportion of Federal Reserve notes issued against notes for the purchase of government securities has diminished, while the proportion of the Federal Reserve notes issued against commercial paper or gold, has increased.

22. *Our monetary system.*—The monetary circulation of the United States is so varied in character that it can hardly be called a system. It might rather be termed a collection of remnants. In it are embodied the remains of abandoned policies. Yet taken as a whole it serves our purposes very well. The "greenbacks" and the silver issues, which in times past have been deemed danger points, have thru the

fact that they are stationary in amount become harmless. At present the only forms of currency that admit of expansion are gold, the Federal Reserve notes and the bank notes of the national and Federal Reserve banks.

Increase in the gold circulation and increase of the Federal Reserve notes depend upon trade movements and not upon government action. In thus securing a currency which is responsive to trade requirements we have placed business on a sounder basis than formerly.

REVIEW

What service does money render in effecting exchanges?

How does money act as a standard of value and what is the chief requirement of the substance used as such standard?

How does paper money get and maintain its value?

What is credit money?

How is Gresham's Law usually stated and when does it operate?

How is the presence of so much silver in the monetary circulation of the United States accounted for?

How many forms of paper money have we in the United States and how do they differ?

CHAPTER XI

CREDIT

1. *Relation of credit to exchange processes.*—It is not practicable to unfold the science of business with the same logical precision that can be applied, for instance, in geometry. Business is a living thing and its parts are so bound up with one another that we must of necessity use many terms before it is possible to define them or consider them in detail.

No discussion of prices and no discussion of money would be possible which did not introduce, at least incidentally, the terms credit and banks. While the technical details of banking and credit are reserved for other volumes of the Modern Business Texts some general consideration of the nature and functions of credit is indispensable to a proper understanding of the general principles which underlie all business affairs.

In the development of successive methods of exchanging goods, credit has been designated as the third and final step. The greater part of the world's business is transacted on a credit basis, and the examination of how this is brought about will not only introduce us to fundamental business activities but will serve to make clearer the processes which have already been explained.

2. *Exchange without money.*—The inconveniences of barter were largely removed by the use of money. Money has attained its present usefulness only after many experiments, but money is not without its limitations. Many of the objections to the use of money in larger transactions, which grew out of the bulk and weight of the coin, have been removed by devising the various forms of paper money described in the preceding chapter. Even with this relief to the mercantile community there has been a constant striving to do business without the actual use of money, not only because of its bulk, but also because it has been found that without using money directly, a much larger volume of business can be transacted.

With exchanges based on credit no money at all is used. Men buy and sell without possessing money and sometimes without owning property. The buyer gives instead of money, the promise to pay money. But the promise to pay money is not of necessity redeemed in money itself. This promise may be, and generally is, satisfied by the transfer of money's equivalent.

Money is sometimes spoken of as the "control over goods." It is this control which men need in business, not the money which gives it. If they can secure the control without the money they are perfectly satisfied. Hence the promise to pay money, involved in every credit transaction, is, in the majority of cases, satisfied by some act of the debtor, which at the time of maturity transfers to the creditor some form of control over goods or, as it was expressed before, money's equivalent.

3. *What is credit?*—Some indication of the meaning of credit has already been given, perhaps in quite as satisfactory form as in a formal definition. But the term is used in so many different senses, both in everyday speech and in the language of affairs, that it is well to determine in what sense it is to be used in this discussion. The common expression that a man is given credit for something, or that he has credit, means in mercantile life that he enjoys the confidence of the community and has the ability to borrow. This is the personal side of credit, which in the world of business is of great importance. The Modern Business Text on "Credit and Collections" will deal extensively with this personal aspect of credit.

In the present discussion credit must be considered objectively. John Stuart Mill in his "Principles of Political Economy" defines credit as being the permission to use another's capital. Mr. H. D. MacLeod in his "Theory of Credit" informs us that credit is "a right of action." These two definitions present credit from two sides but each is an incomplete picture. Mill's definition of credit describes, tho briefly, the role which credit plays in modern business, while MacLeod approaches the subject from its legal rather than from its economic side.

A credit is so much more than the permission to use another's capital that it will serve our purposes better to amplify the definition of MacLeod and designate credit as the right to receive a future payment of money. If we keep this thought in mind it will enable us to understand more clearly not only what credit does but how it accomplishes results.

Such a definition of credit implies that some exchange is incomplete. On the one hand, a quantity of goods or some other valuable consideration has been transferred, but the payment for it is postponed. All that is given in exchange is a promise to pay. This promise may be regarded as something definite because in various ways whoever obtains from such a transaction a right to receive payment can transfer that right before the payment is actually due, and thus come into the possession of the full fruits of the transaction. For its further utilization in business affairs, however, the form in which the promise or the credit is expressed is of the highest importance. If reduced to a promissory note, bill of exchange or similar instrument, it becomes at once impersonal, and can be bought and sold with comparative ease.

4. *Kinds of credit.*—All credit arises in the process of exchange, either the exchange of credit for goods, credit for money, or credit for credit. If A buys goods of B, he may offer the price of the goods in gold or in bank notes, he may give his promissory note or he may give nothing but his simple promise to pay. When payment is made in gold no credit is involved.

The case is different when payment is made in bank notes. As we have seen, these circulate as money and have a wide acceptability, but back of them is the credit of the bank. They belong in that intermediate stage between standard money and credit which has been designated as credit money. When the purchaser offers his personal check and this offer is accepted, there is a payment thru credit. This is plain in the case of payment by promissory note or when there is only a simple promise to pay, but in the former case the credit is less personal and more general.

It is plain that these different forms of credit have different degrees of transferability. Checks, notes and personal promises or book credits represent three degrees of transferability, of which the first is the highest and the last the lowest.

5. *Credit based upon money.*—Credit is the right to receive a future payment of money, but if it were nothing more than this it would serve only a limited purpose. All credit is expressed in terms of money because all values are so expressed. If the credit is a simple book credit for 30 or 60 days and on the expiration of this time is canceled by a payment of gold the transaction is merely a money exchange with deferred payment. The same is true if a promissory note is given which remains until maturity in the seller's hands and is then paid in gold.

But if the seller takes the note to the bank and has it discounted, he transforms a credit of limited acceptability into one of much larger acceptability and is able to make use of an equivalent amount of capital.

If when the credit, whether a book credit or a note, becomes due the buyer cancels it by his check on the bank, the whole transaction has been accomplished without the use of money.

Credit always creates a right to receive money at a future date, and while in the majority of cases it is not money but money's equivalent which is received, it would be utterly impossible to understand all the workings of credit if it were not borne in mind that this right to receive money may be exercised. Indeed, the varying degree in which this right is actually exercised is largely responsible for what the business world knows as the cycle of prosperity, panic and depression.

6. *Use of credit in industry.*—Modern business requires capital for its foundation and its operation. It must have lands, buildings, machinery—a great variety of capital goods which make up plant and equipment. Furthermore, it requires raw materials, supplies and money to pay for services and for such expenses as taxes. Now, in the modern world it is not necessarily the owners of wealth who engage in production or direct industry. If the man behind the enterprise is not a capitalist and cannot induce capitalists to share with him in the risks and profits of the business he must borrow property from others. In so doing he goes into debt, and various kinds of credit obligations are created which must eventually be liquidated.

The particular form which these credits take depends upon a variety of circumstances, not only the sagacity of the borrower, but the purposes to which the money is to be put and the condition of the credit market. As a general rule, before credit can be obtained in any form the borrower must have some actual wealth which he owns or controls. Thus credit appears in the role of supplementing capital, and enabling the business man to verify the scriptural saying that "to him that hath shall be given."

The readiness with which credit can be commanded depends upon the reputation of the manufacturer or dealer for successfully selling his product, the amount of the credit and the nature of the business. Since all kinds of business are not considered by the world at large as equally vital to the welfare of the community, there may in dull times be much greater difficulty in borrowing for one kind of business than for another.

Those who deal in food and in other necessaries of life are reasonably sure of selling their product under all conditions. Even in hard times credit is granted to those engaged in such business, where it would be denied in a business which could command a less certain market. But oftentimes men in these other lines of business have a reputation for successful selling which is so good that they can easily obtain credit when many of their rivals encounter extreme difficulty in so doing, or fail in the attempt. These conditions may well determine the form of credit. In some cases almost absolute reliance may be placed on temporary accommodations. In other cases it may be more advantageous to increase permanently the working capital by placing longer terms of mortgage upon the real estate used in the business.

7. *Mortgages and bonds.*—When capital is borrowed on a mortgage, real property is pledged for the payment of the obligation assumed. The ordinary small loan is made by means of a bond and mortgage, in which the bond contains the direct obligation to pay and the mortgage is the agreement, in case of nonpayment, to transfer the property pledged to the creditor. Such a bond is in smaller transactions indivisible. In the larger transactions of corporations the bond becomes bonds which are fractional parts of a common obligation secured by a mortgage. Like short-term obligations these promises must be redeemed, but as they run for considerable periods of time the borrower is given the opportunity to make the required payments from the accumulated profits of the capital which has been borrowed.

The purpose of loans of this character is to allow the borrower to use the proceeds in some more or less fixed or permanent investment. The railroad corporations of the United States have borrowed largely in this manner and the method is coming to be more and more general among the public utility corporations. On the other hand, industrial corporations have used this form of borrowing sparingly. When bonds are issued in this form it is expected that interest will be paid from the current earnings of the corporations. Payment of the principal is sometimes provided at least in part from earnings, but is generally made from the proceeds of the sale of new securities.

8. *Commercial credit.*—The borrowing on bonds and mortgages naturally suggests a contrast to ordinary commercial credit. When a dealer purchases goods on credit he hopes to have sold these goods again before the expiration of the credit period and to be in a position to meet his obligation from the proceeds of the sale. By such action he expects to gain in addition a profit for himself. This illustrates what Mill had in mind when he defined credit as permission to use another's capital.

Similarly, when a manufacturer buys materials on credit or borrows money on his note to pay wages, he hopes to meet such obligations from the sale of his product. There is in these cases a confident expectation that the whole amount borrowed will be replaced, as it were, by a single transaction. When money is borrowed for longer terms the replacement of the capital is only gradual.

The distinction between borrowing for investment purposes and borrowing for operating expenses is very important, altho it is not always observed either by those who seek or by those who grant credit accommodations.

9. *Cost of credit.*—Credit is an economic good and like other economic goods must be paid for by those who use it. In the case of bonds and certain long-

term notes the price is expressed as interest. In the case of notes discounted at the bank the price of credit appears as discount. In some cases, indeed, no interest is apparent on the face of the transaction. When goods are bought on sixty days' credit, for example, the interest paid by the borrower is concealed in the price of the goods. In mercantile practice, wherever a specific discount is allowed for cash payments, the amount of the interest involved in payments on credit can be precisely calculated. There can be no doubt that such transactions always include interest, whether or not it may be readily calculated.

The rate of interest is determined by the condition of the credit market. Rates of interest on bonds and other long-term obligations appear to be fairly fixed, altho they vary somewhat with the demand for, and the supply of, such investments. These variations, in the case of bonds and similar securities, are more likely to find expression in the price of issue than in the interest rate. Generally speaking, railway obligations bear from four to six per cent interest, public service corporation bonds from five to six per cent and real estate mortgage bonds from five to seven per cent, according to the location and the value of the security.

On the other hand, the discount for commercial paper has a much wider range. It may be as low as three per cent when the market is easy and bankers are eager to loan. But as the demand for credit increases, rates of discount rise and in times of panic may be as high as 10 and 12 per cent. The average is perhaps from four to five per cent. The lower rate of interest for commercial paper sometimes prompts men who have no immediate prospect of repayment to borrow on short-time paper.

Naturally the borrower seeks the lowest rate of interest available. If he has borrowed at four per cent on short-time notes he is reluctant to issue six per cent bonds in their stead. If money becomes tight he seeks to make the change but is liable to find that the market will no longer absorb the bonds. The advantage of long-term borrowing in certain lines of business is so great that far-sighted men of business will often forego the temporary advantage of lower interest in short-term notes in favor of the greater security of long-term obligations. When capital is borrowed on such terms the borrower has no fear of being squeezed in a tight money market which may jeopardize his enterprise.

10. *What credit does.*—This description of the conditions under which credit is obtained has incidentally given some idea of what credit does. It must be evident that credit directly adds nothing to the wealth of the community except perhaps as it draws in capital from other sources. If we take the world as a whole, the existence of credit does not of itself enhance the amount of wealth. Any inventory of the world's wealth would pass over credit, because credit is, after all, a relation between individuals, a question which concerns not the aggregate of wealth but its distribution among individuals.

The chief function of credit in the world of production is to distribute capital. Thru its agency the active, energetic men of the world are enabled to secure control of the capital needed in their enterprises. Thus, while credit does not increase wealth it greatly increases capital, which has been defined as wealth devoted to production. It can therefore be readily understood why writers upon the subject have been disposed to sing hymns of praise in honor of credit, and extol in eloquent periods its beneficent workings. Thru its aid the world's production is vastly increased, and the creation of wealth is greatly stimulated. While it is not wealth, it is one of the most powerful factors in the creation of wealth. Indirectly it serves to bring forth new stores of value, to create new means of production, favoring economy and providing for each generation a larger store of this world's goods than was possessed by its predecessors.

11. *Credit and money.*—All credit is expressed in terms of money, and back of it there must be certain reserves not only of capital, as has already been pointed out, but also of money. Such reserves are needed for the contingency that a portion of the credit obligations must be met by money payments. This is not the only relation of credit to money. As we have seen, the function of money which is most generally understood, and which was perhaps the first in point of time, is to serve as a medium of exchange. If anything besides standard money serves as a medium of exchange in just so far does it partake of

the nature of money. Now under many conditions credit serves to make exchanges; thus it is described as a medium of exchange.

Some have pointed out that, as the majority of exchanges are made by the use of credit, credit and not money is the chief medium of exchange. This point of view is useful in calling attention to the services of credit but it should not lead to any misapprehension of the relation of money to credit, or the designation of credit, as money. Between the two there is a fundamental difference. As a medium of exchange money is universally acceptable, while credit has only a limited acceptability.

The relation of money and credit brings to light the great importance of the distinction between credit in general and credit instruments. The former does not serve as a medium of exchange in any degree except as it is transformed into the latter. If the use of credit merely postpones a payment of cash, and nothing more, it may serve a useful purpose to the individual but it does not in any degree perform a money function or diminish the demand for money. A credit instrument may, however, be used to effect any number of exchanges besides that which originally gave rise to it, and thus it may perform a real money service.

It is quite possible to conceive of notes and similar obligations as performing this function without the interposition of the banker. But in the modern world it is thru the banker that credit serves as a medium of exchange, and any explanation of things as they are must take the banker into account. He is the intermediary thru whom credit is distributed to those who desire to utilize it. While the full description of banks and their operation must necessarily be reserved for the Modern Business Text on "Banking," their relation to the general credit situation may be briefly set forth here.

12. *Bank notes.*—The methods pursued by the banks in different countries in lending money vary. In some countries credit is extended chiefly thru the use of bank notes. The applicant for a loan receives its proceeds in the notes of the bank, which he uses as money for the payments that he has to make. Such notes are simply the promissory notes of the bank. People are willing to accept them because in form they are similar to money, and because the bank is known generally to be solvent. This solvency is maintained by holding in the bank a reserve of standard money with which to redeem the notes on presentation. Such notes are always payable on demand. The reserve of money held against them is either fixed by law or dictated by experience, but the reserve is only a fraction of the amount of the notes issued. With a reserve of 20 per cent, for example, the potency of money to effect exchanges is multiplied five times as long as the bank holds it in reserve for the redemption of notes issued against it.

The amount of gold held and the amount of notes issued against it varies with the demand for capital.

In dull times it is curtailed, and in easy times it increases in amount. These changes are brought about by the issue and the redemption of the notes. If notes are in excess of needs they flow back into the banks. In common speech such bank notes are usually spoken of as money, but the economist recognizes the important credit element which enters into them and calls them, as we have seen in the preceding chapter, credit money.

In the hodge-podge of bank note issues which prevailed in the United States before the enactment of the National Banking Act, there were some banks which issued notes on the principle which has been described and, in a general banking situation which has frequently been spoken of as riotous and chaotic, preserved an honorable record. But so many abuses arose that people regarded the issue of bank notes more as a government issue than as a function of credit. In the national banking system, regulation superseded redemption as a controlling principle in the issue of bank notes. Neither the national bank notes nor the Federal Reserve bank notes which are to replace them rest on the demand for capital, but on bonds deposited for their security. On the other hand the Federal Reserve notes as described in the last chapter rest in part upon this demand and can be issued to meet the varying needs of the business community.

13. *Bank deposits.*—In the United States the development of banking credit has been chiefly thru the

growth of the deposit and check system. Under this plan credits circulate thru checks and drafts drawn against deposit credits. Bank loans are not made by handing the borrower the proceeds either in its own notes or in other currency but by opening a credit to his account. Against this credit he may draw checks. The recipient of the check does not as a rule cash it, but deposits it in the same or another bank. Thru a bookkeeping arrangement in the bank, or an adjustment between the banks when two are involved, the right to draw checks passes to the new owner. By this process, indefinitely continued, the credit of the country is mobilized thru the banks and serves the purpose of a medium of exchange.

The volume of credit swells as the business of the country increases, and contracts when the business diminishes. It serves most, if not all, the purposes of money much better than money itself, among those who are accustomed to its use. Whenever large payments have to be made to persons not familiar with credit transactions money is required, and this strains the credit situation. The need of "money to move the crops" is a familiar illustration. When crops are harvested actual currency is needed to make payment for them. This seasonal demand for cash is, however, diminishing as the western farmer becomes more and more accustomed to the use of banks.

14. *Liquidation of credit.*—Thru the agency of credit a vast number of obligations payable in money are created. Obviously it would be impossible to

redeem them all at one time. Against such credit there is kept a certain reserve of gold. If demands for redemption lessen the quantity, it must be replenished. It can be replenished only by curtailing credits. Such a process does not, as we have seen, lessen in any degree the amount of existing wealth, but none the less it may necessitate painful readjustments in business. Those who had counted upon the continuance of credit accommodations are forced to curtail or even abandon their operations.

If the demand for a liquidation of outstanding credits is widespread, panic and business depression ensue. Wealth is not destroyed. But the control of wealth passes more and more into the hands of those who own the wealth, and its activity is lessened. Capital or wealth used in production is diminished, and with the decrease in capital the creation of new wealth slackens.

On the other hand, in times of reviving business, the prospect of gain lures wealth into productive uses, and thru credit the available capital is increased. Permission to use another's capital, as Mill would say, is more and more freely granted. Thus it is that business is never stationary, that there arise alternate periods of prosperity and depression. The crux of the situation lies in credit.

No device has been conceived by society which will prevent these ups and downs, nothing which will give credit freely when credit is most wanted. But thru a wise adjustment of credit agencies much can be done to mitigate the severity of periods of stress and strain. It is hoped that the reorganization of our banking system thru the Federal Reserve Act has created an organization which in the future will make panics less severe than they have been in the past.

REVIEW

What are the economic and legal aspects of credit?

What are the principal divisions of credit which are important from an economic point of view, and in what does their importance consist?

Does credit economize or dispense with the use of money? What is the distinction between the two ideas?

How do the conditions of the credit market affect long-term and short-term credit respectively?

What forms does bank credit assume and what are the particular advantages of each?

How do bank deposits serve to effect exchanges?

What causes the fluctuations in the credit market?

CHAPTER XII

MONEY, CREDIT AND PRICES

1. *Relations of value, price, money and credit.*—The discussion has taken up successively a series of closely related phenomena, value, price, money and credit. It remains to consider them in their mutual relations. Price we have considered as the expression of value in the terms of one commodity, money as the term in which price is expressed, credit as an agency thru which the use of money is economized. We must now inquire what it is that fixes the value of money, how the value of money is expressed in prices, and what effect credit has upon prices.

2. *Value of money.*—Commodities have value because in the first instance they satisfy some desire of man's nature in the present organization of society; in other words because they have utility, and because the available supply is less than the demand for them. Like all other things money depends for its value not only upon its utility, but upon the demand for money and the supply of money. Its utility does not lie in the substance of which it is composed but in the service which it renders. It is a common impression in the case of standard gold money, that the money is valuable because it is gold, whereas it would be more accurate to say that gold is valuable because it is

money. We all know that a silver dollar and a paper dollar are each worth a dollar, not because of the substances of which they are made but because they do the work of a dollar.

Nor is the case of a gold dollar essentially different. It may be admitted that gold as a substance has utilities apart from its use as a monetary medium, but these are of second rank. Apart from its use as adornment its employment in the arts is extremely limited. On the other hand, a very large portion of the gold stock of the world is performing the function of money, and there can be no doubt that were gold deprived of its money function it would greatly depreciate in value as compared with other commodities. The use of gold as money heightens the value of gold, and the value thus given to gold is imparted to the other forms of money which do a similar service in the affairs of the world.

Like other commodities or services, the value of money depends upon the ratio between demand and supply. What these terms mean in relation to commodities in general has already been explained. In the case of money the elements which enter into both demand and supply are so complex that special analysis is desirable.

3. *Demand for money.*—What measures the demand for money? Obviously the demand for money differs from the desire for wealth. While in common parlance we are apt to confuse the two and speak of the well-nigh universal longing for riches as an

insatiable demand for money, it is not in this sense that the phrase is used here. The demand for money is simply the work that money is required to do. That work, as preceding chapters have shown, is somewhat varied in character.

Money serves as the medium of exchange.

Money serves as the basis of credit.

Money serves as a store of value.

4. *Population and the money demand.*—Other things being equal, the demand for money grows with the volume of business. The United States today, with its population of over 105,000,000 persons, could not conceivably get along with no more money than when our national existence started. The growth of population, independently of any other factors, has created a far larger demand for money. Business activity does not depend upon population alone; China with its teeming millions is not a business force comparable to other nations with much smaller numbers.

In newer countries, such as the United States and Canada, increasing numbers have been also accompanied by increasing wealth. The greater the wealth the more frequent its interchange, and the greater will be the demand for money. In the United States the money employed per capita has been constantly increasing. In part such increase must be explained by a greater demand for money flowing from the rapid increase of wealth.

5. *Industrial development increases money de-*

mand.—Certain writers have laid much emphasis on the distinction between a natural economy and a money economy. The phrases are not in use in the United States, tho nowhere is the contrast between the conditions which they describe more recent than here. Under a natural economy the writers in question describe a condition of affairs by which men singly or in groups satisfy their needs directly without calling upon the aid of outsiders. The western frontiersman and the southern planter of the last century represented these types. For food, shelter and clothing each relied upon his own efforts or upon the efforts of those immediately associated with him. Money he needed only to a limited extent. If all society were organized upon such a basis the demand for money would be very small because there would be little work for money to do.

A natural economy is a direct contrast to what is termed a money economy. In its highest form money economy represents a condition of society in which no one produces any article whatever for his direct personal consumption. Such a condition of affairs is found in our cities today with minor and insignificant exceptions. Industrial centers like cities, however, offer a contrast to the agricultural communities. The farm grows a large quantity of crops which are used directly either for personal consumption or in the operations of farming as feed for live stock.

It is sufficient, perhaps, to have described these different conditions to make it clear how industrial development increases the demand for money. As the people of the United States have passed successively from a group of backwoodsmen to a nation of agriculturists and finally to a people of large industrial undertakings, the demand for money has grown insistently, for the money work of the nation has immeasurably increased.

6. *Extension of credit lowers demand for money.*—Having in view the enormous development of business during the last century, not only in the United States but thruout the whole civilized world, it is clear that there would be at present an overwhelming demand for money had there not been during this period a parallel development of the machinery of credit, which was described in the preceding chapter. The demand for money is conditioned, as we have seen, by the volume of exchange, but directly only by such exchanges as are effected by means of money. Where the exchange is effected by credit the demand for money is limited to the amount necessary to serve as a basis of credit.

If, in a community which experienced no change in the volume of business, a credit organization was developed which made it possible to conduct exchanges with one-fifth of the money previously current, it is perfectly clear that the demand for money would diminish, and the money would fall in value or be dispensed with by exportation or by use in the arts. As a matter of fact, the development of credit does not take place in this way. It usually accompanies an increased volume of exchanges. Its effect is not so much actually to decrease the demand for money as it is to prevent the demand for money from growing as rapidly as it otherwise would.

7. *Money hoards and rapidity of circulation.*—Money, we have seen, serves a use as a hoard or store of value. It is not a use which the economist approves but it is none the less one with which he has to reckon. If such use of money is extensive there will be a greater demand for money than when hoarding is practically negligible. With the general progress of enlightenment this form of money demand tends to diminish. But while the habit is disappearing there are occasional recrudescences which are apt to occur when they are most harmful, namely, in times of panic.

The use of money as a store of value diminishes its efficiency for the purposes for which it is intended. It therefore increases the demand for money since an inefficient instrument does less work. Conversely, whatever increases the efficiency of money lessens the demand for it. Whatever increases the rapidity with which money circulates therefore diminishes the demand. It is one of the advantages of the introduction of banking habits that men carry less money in their pockets, and thus money acquires a greater rapidity of circulation.

8. *Supply of money.*—The supply of money is the quantity of standard money in existence. The

supply of money in any given country when any commonly used standard, such as gold or silver, is employed as money is automatically regulated thru international trade. If the supply is excessive prices rise, and the country having such prices becomes a good country in which to sell goods. Merchants in other countries improve the opportunity and in settlement of the exchanges gold, for instance, is exported. Such export reduces the quantity of gold in one country and increases it in the others, thus bringing about an equilibrium.

A similar process would be involved between countries using silver as the monetary unit. Where standards differ, exchanges are hampered and the supply of money is not so regulated. When fiat money usurps the place of standard money its volume is apt to be in excess of the trade needs of the country issuing it and its value, thru excess of supply, diminishes. In other words prices rise.

9. *Changes in the money supply.*—When, as in the case of fiat money, the supply of money is dependent upon nothing more certain than the capricious needs of government, the value of money will vary rapidly and violently. In the case of money based on gold, changes are less rapid. From country to country the processes of exchange effect, as we have seen, an automatic distribution of the money metal and bring about a comparative equality of prices.

In the world at large there may be notable changes in the supply of money. These changes in the production of gold from year to year are not so great as in the case of agricultural products, for example. A demand for money cannot be immediately met by increasing the supply. The processes of mining are laborious. A fall in prices or a high value of gold will indeed induce mining operations which might otherwise be unprofitable, but this will not materially change the volume of the product. Rising prices of commodities will render the working of some mines unprofitable.

The product of agriculture is used up practically each year, and changes in its amount are quickly reflected in prices. It is, however, not the annual production but the existing stock which controls the value of gold. Such changes as are observed from year to year make only an inappreciable change in the money supply.

It is otherwise with the great gold discoveries. When gold was discovered in California and Australia a flood of the yellow metal was turned into the commerce of the world. After the first year or two the gold stock was considerably increased; prices rose and the value of gold declined. Later came a lull in gold production. The increase of supply was no longer sufficient to meet the increase in the demand for money, and prices fell. With the more extensive exploitation of the Rand of South Africa, the annual gold production began to rise until it exceeded the height of the California output. The stock of gold in the world was considerably augmented and an era of rising prices was ushered in.

10. *Money values expressed in prices.*—The value of money is equivalent to its purchasing power. There is no way of expressing this purchasing power except in terms of what money will buy—in other words, by the commodities which will be exchanged for a given quantity of money. Hence, price and value of money are reciprocal terms. When prices are low the value of money is high because a given quantity of money will command a large amount of commodities. If prices are high the value of money is low because a smaller quantity of commodities can be purchased by a given quantity of money. If the price of any single article could be a criterion of the prices of all articles this reciprocal relation would be plain at a glance. The price of any single commodity, however, is the result of a combination of factors of which the value of money is only one.

11. *Prices of commodities.*—Changes which take place in the prices of commodities may be due either to changes which affect the commodity only or, since price is the relation of the commodity to money, to changes which take place in the value of money. Change in price may therefore arise from a change in (1) the demand for, or (2) the supply of the commodity. Changes of this nature are reflected in the price of one commodity as compared with another; their positions in the price scale change.

A change in the demand for money will change prices. If the demand increases without change of supply an increased burden is placed on each money unit. There are more exchanges to be made but there is the same money with which to make them. Hence units of money must command larger quantities of commodities; prices fall and this indicates the increased value of money. Conversely, when the demand for money decreases, prices rise and the value of money falls.

Changes in the supply of money work similar results in prices. If the supply diminishes prices fall and the value of money increases. Should the supply of money increase, the prices of commodities rise and the value of money falls.

It may be noted that when prices change by reason of differences in the demand for and supply of commodities, some commodities may rise in price, while others fall. Such readjustments in prices of commodities are constantly taking place. On the other hand, should price changes be wrought by changes in the value of money, we should expect uniform action upon prices, a general rise of prices or a general fall.

12. *Measuring price changes.*—Simple as these propositions appear to be, no little difficulty is experienced in demonstrating their truth by an appeal to the facts. In actual experience the two sets of forces fixing prices, those affecting commodities and those affecting money, are never separated. Particular price movements run counter to general price

movements and obscure them. Like those who are unable to see the forest for the trees, there have been some who were unable in the shifting of many prices to discern any general movement whatsoever. They have therefore been led to question whether changes in the monetary situation have had any effect upon prices and have been ready to ascribe such changes to almost any cause but the true one.

13. *Index numbers.*—The study of prices has long been a subject of particular solicitude, not only to the men actually engaged in business but to the students of business affairs. To separate the general from the particular, economists have invented what is known as the index number. The purpose of this device is to ascertain the average change in prices of a group of commodities. The prices of a given period or a given time are selected as a base and the price of each commodity is determined.

The advantage of taking as a base the average price for a series of years is that this course makes it possible to eliminate as far as possible the influence which, in a shorter period, unusual conditions might have had on the price of a particular commodity. When the base price is ascertained,other prices during, before and after the period of the base are expressed as percentages of this base. Commodities A, B, C and D, will each have a different base, but when the base is turned into a percentage it becomes uniform for all, namely 100. We may suppose that at a later period A is represented by 110, B by 106, C by 102, and D by 98. Now if these figures be averaged the result is 104, and this represents for the group an average rise in price of 4 per cent over the base. One of the commodities indeed declined in price, but this does not alter the fact that the general tendency is to advance the price.

In following the method, briefly indicated, of constructing an index number, each article has been given an equal importance in determining the change. If instead of abstract designations A, B, C and D, concrete articles had been named, such as wheat, iron, wool and indigo there might be some doubt as to the propriety of giving each an equal importance in fixing the result. To avoid such questionings various methods have been devised to give an appropriate weight to the different articles; such weights have been arranged in accordance with the foreign trade, or with the estimated national consumption or the expenditure of workingmen's families.

None of these highly complicated methods has, however, led to substantially different results from the simple arithmetical average. It is clear that if each article moved upward in price exactly 5 per cent it would not matter how many articles were added to the list nor how they were combined, and one could not get any other general result than a five per cent advance. If some articles increased four per cent and others six they would, if equally divided, show an average of five per cent, but no method of combination could make the advance less than four, or more than six per cent. In other words, in a group of prices the general tendencies outweigh the particular ones, and no combination of different results according to any plausible system of weights will emphasize the particular tendencies at the cost of those which are general.

14. *Course of prices.*—Various index numbers have been compiled in many countries. Differences due to a different choice of articles, different initial bases for the calculations, and occasionally different methods of grouping or averaging the price indexes of the different commodities produce different price levels for the same date in the different indexes; but the movements of prices show a remarkable similarity. The oldest of these calculations are those of the London journal, *The Economist.* Another English computation of wide repute, that of Mr. Augustus Sauerbeck, has been continued by Sir George Paish in *The Statist.*

The first computations of this character in the United States were made under the direction of Dr. R. P. Falkner, at present managing Editor for the Alexander Hamilton Institute, for the Senate Committee on Finance in 1891. The computations went back to 1860 for a base, and for a large number of articles, prices were obtained from 1840. Tho not continued directly, this investigation was the basis for subsequent official publications of this nature. A few years later Dr. Falkner persuaded the Bureau of Labor Statistics to take up the matter again and, after an effort to complete the earlier figures under his direction, the Bureau established its own index number on the basis of the prices of years 1890–99. More recently the Bureau of Labor Statistics has shifted the basis for its computation to the prices for the year 1914.

There are many other index numbers. A full account of the most important of them is given in the Modern Business Report, number 19. This Report not only discusses the technic of compiling such figures but gives in detail the results for several important series since the year 1900. An examination of these series discloses the fact that however much they differ in detail of their construction—and wide differences are to be noted—they are singularly in accord in their results. Almost any one of them can be used with a fair degree of accuracy to indicate the general trend of the price movement.

Reviewing such figures the thoughtful reader could not fail to be struck by the fact that rising prices followed the period of gold discovery in California and Australia and at a later period, at the close of the last century and the beginning of the present, began to rise again after the output of gold was increased thru the abundant outpourings of South Africa.

The most conspicuous fact in all countries in recent years has been the inordinate rise of prices following the Great War. The rise of prices in Europe was largely due to huge issues of irredeemable paper money, the gold standard being abandoned. In the

United States the great rise of prices took place as a result of a rapid and unprecedented increase in the gold supply, one billion dollars of gold having been imported in 1915 and 1916. As a result of this great increase in the gold supply of the United States, the average of prices in 1918 was nearly 100% higher than in 1915. Speculation and credit inflation during the next two years lifted prices still higher, until the average for 1920 was 150% above the 1914 level. In the latter part of 1920 prices began to tumble, the banks having found it necessary to contract credit in order to check the dangerous spirit of speculation. By the middle of 1921 the level of wholesale prices, so great had been the decline in one year, stood at not more than 50% above the 1914 level.

15. *Effects of changing prices.*—When the changes in price are due to the changes in the value of money the economic effects which follow are very marked. Economists have pointed out that production and exchange are adjusted to the price level, that there is no peculiar merit in high prices and no special disadvantage in low prices. It is not the level of prices, whether it be high or low, which causes either prosperity or distress. But changes in the price level bring out the need of many readjustments. They affect business chiefly thru the fact that money is a standard of deferred payments. Rising prices work to the advantage of the debtor, falling prices to that of the creditor.

In our analysis of credit it was seen that in the field of production the debtor is the active man of enterprise who is willing to take risks, and who expects from the return from his enterprise to cancel his obligation. In periods of falling prices, interest payments and payments on account of principal absorb more and more of the product of his industry. In the long period of falling prices which preceded 1896 the public heard much of the plight of the farmer who had a mortgage on his farm. With every fall in the price of his wheat, a larger and larger number of bushels of wheat was necessary to meet his obligation. When, on the other hand, prices are rising the debtor finds it continually easier to meet his obligations.

Hence falling prices cause depression in business, and rising prices hopefulness and activity. Since business rests so largely upon credit, and credit rests upon confidence, it is easily understood how the general state of the public minds finds a reflection in the dulness or activity of business affairs.

REVIEW

What fixes the value of money?

How is the demand for money increased and how is it diminished?

What is the supply of money and how are changes in it effected in individual countries and in the world at large?

How is the value of money expressed?

What special and general conditions affect the prices of commodities?

How are changes in the general price level measured?

How do changes in price level affect business?

CHAPTER XIII

FOREIGN TRADE

1. *Essentially like domestic trade.*—The study of international trade is likely to present difficulties unless at the outset one rids himself of certain wrong ideas which he is almost certain to have obtained from current newspapers and magazines as well as from conversations with untrained business men. For many centuries "practical" men have held such ideas as the following:

First, that foreign trade gives a strong and rich nation opportunity to exploit or take advantage of weaker nations.

Second, that in foreign trade the seller makes a profit and the buyer suffers loss, and where this view is entertained in any country a large volume of exports is viewed with more pride than a large volume of imports.

Third, that a nation suffers real loss of wealth when it exports gold.

Fourth, that people who purchase goods made in foreign countries are doing two evil things; sending money out of the country and lessening the home demand for labor.

In this chapter it will be made clear that all ideas of this sort are erroneous. In its essence foreign trade is exactly like domestic trade. It possesses the same advantages and is governed by the same laws. It makes no difference whether a bale of Mississippi cotton is sold in Liverpool or in New York; the nature of the trade will be the same and the United States will be benefited by the one transaction no more than by the other. If the manufacturer of some article finds that his output is tending to outrun the demand, he may seek new outlets in foreign fields, or he may seek to enlarge the home demand by more intensive advertising in his own country. As a wise man he will adopt the policy that promises in the long run a steadier market and larger profits, and as far as the wealth and welfare of his country are concerned it will make no difference which policy he adopts. Trade between Pennsylvania and Kansas is a source of national wealth quite as much as trade between Pennsylvania and Europe. The people of each state, on account of the natural resources of their territory, possess advantages over the people of the other state in the production of certain commodities and by the medium of trade are able to share those advantages. Pennsylvania, for example, produces more iron and steel than its people can consume, while Kansas produces an excess of corn and wheat. Trade makes iron and steel products cheaper in Kansas and lowers the breakfast table cost in Philadelphia.

In exactly the same way foreign trade results in a benefit to both parties. England by its trade with the Orient gets tea and silk at reasonable prices, and the Orient in its turn gets the products of the skilled workmen in English factories.

Fundamentally, trade of all kinds arises out of the differences that exist among men and natural resources, especially the latter. Differences among men lead naturally to a division of labor, each man seeking more or less consciously that work for which he is best fitted. In the same way the people in any given territory produce those commodities for the production of which nature has given them the greatest relative advantage. So New England gives us apples and dairy products, the Dakotas specialize in wheat, Florida in oranges, California in fruit and cereals, the Southern states of the Union in tobacco and cotton. As a result of trade, the people of each state share in the advantages of all, benefitting quite as much by their purchases as by their sales.

Assuming that international trade is conducted as honorably as domestic trade—an assumption which ought to be strictly in accord with facts—the various peoples of the earth reap benefits and advantages from foreign trade in exactly the same way as do the people of the United States from the domestic trade within their own borders.

2. *Prices and costs.*—As we saw in our discussion of value, the prices of commodities tend to coincide with their cost of production, for if any article sells at a price much above cost the makers reap an unusual profit and additional competition is invited. More

capital and more labor are drawn into the production of the article and the increased output which results tends naturally to cause a decline in price.

As between nations, however, competition of this sort is much less effective, mainly for the reason that labor cannot be persuaded to migrate from country to country as easily as from district to district in the same country. Furthermore, the resources, the climate and the industrial skill which enable a country to produce articles of such superior quality that they are favorites in the world's markets cannot be imitated by nations which desire to enter into competition with them. In the world's markets, that is in international trade, certain special products of such countries may command prices that yield to producers remarkable profits. For example, the wines, liquors and perfumes of France have been of such fine quality as to render competition on the part of other nations unsuccessful. If a French vintage sells much above its cost, its price can be lowered only by increased output in France itself. If Havana cigars sell at prices much above their cost, the fact will be due to Cuba's inimitable soil and climate. If capital and labor could move from the United States into Cuba as easily as they move from New York to Illinois, and the production of good Havana cigars be indefinitely increased, they could never be sold at prices that would yield their manufacturers more than an ordinary rate of profit.

3. *International demand and supply.*—The world's

market prices of articles that figure in the imports and exports of nations are determined by the law of supply and demand. Let us take the case of wheat, a cereal produced in only a few countries but in demand all over the globe. Where and how is its value or price determined? In the United States we think of the Chicago Board of Trade as the place where the bulls and bears fix the price of wheat, and it is doubtless true that more wheat is bought and sold in Chicago than in any other city of the world, and that fluctuations in Chicago prices are closely watched by dealers in all countries. Yet the forces at work on the Chicago market are not local or national; the same forces are operating in Liverpool, in Buenos Aires, in Hong Kong. They are the world-wide forces of supply and demand. What is the visible supply of wheat in all the granaries of all countries? What are the crop prospects in the great wheat-growing countries north and south of the equator? Will the demand for wheat justify a price of $2.00 per bushel? Problems of this sort the speculator in wheat must solve, and he will not arrive at the right estimate of the value of wheat if his solution is erroneous.

4. *So-called balance of trade.*—In considering the foreign trade of a nation it is customary to take into account only the precious metals and other tangible commodities, such articles as are noted at the custom houses. For a long time, gold, since it was the world's money metal, was put in a class by itself and was popularly assumed to be imported or exported in set-

tlement of a balance between exports and imports of merchandise. If a nation's imports have a value higher than that of its exports, its balance of trade is said to be unfavorable, and its balance is said to be favorable if the value of its exports exceeds the value of its imports. These expressions are likely to lead to misapprehension and therefore require some analysis.

5. *Visible and invisible trade.*—Strictly speaking, there is no such thing as a balance of trade between nations. Obviously economists have borrowed the word balance from accounting and not from physics. The balance is a shortage not an equilibrium. For a year or a period of years, the value of the imports of commodities as compared with the exports, or vice versa, may show such a balance or shortage; yet in the long run one must equal and offset the other and produce an equilibrium. And even the temporary difference between the two could not exist were it not that nations indulge in credit transactions just as do individuals.

Between 1850 and 1880 European investors made large advances to the builders of American railroads, besides purchasing interests in lands, forests and mines. As evidence of their investment they received stocks and bonds. This European capital increased the buying power of the United States and brought about larger imports of goods from foreign countries. Toward the end of the century the payment of interest and dividends to the European investors reversed the situation and caused an increase of exports from the

United States as compared with the imports. The great war in Europe (1914-1918) increased the excess of exports and new elements came to the front. The people of the United States, acting either as individuals or thru their Government, bought back from the Europeans the American securities which they had held for so many years and in addition loaned them upwards of eight billion dollars. These transactions, invisible so far as the statistics of foreign trade are concerned, account for the great excess of merchandise exported from the United States during the Great War and in the years immediately following it. Movements of securities between nations are of great importance. The foreign trade of no nation can be understood unless these movements are taken into account.

Other invisible items influence the foreign trade of nations in greater or less degree. Before the war, for instance, Americans were fond of European travel and were notorious money spenders. To a student of foreign trade they were all importers; altho instead of sitting at home and ordering foreign goods sent to them, they went abroad and bought the goods themselves, consuming most of them on the spot. In payment for the goods bought by American tourists the United States was obliged to export goods in excess of those imported thru the custom houses.

6. *Fundamental propositions.*—The conclusions in the preceding section will not be perfectly clear to the reader until he thoroly understands how international payments are effected, and this is a diffi-

cult subject so important that the Modern Business Course has devoted an entire volume to the consideration of its varied aspects. At this point we will call the reader's attention merely to three fundamental propositions which are not difficult of comprehension.

First, a nation cannot pay for all of its imports with gold. In normal times every nation nearly always has all the gold it desires or requires. If a nation sought to pay its foreign indebtedness with gold, the lessening of its stock would tend to cause prices to fall and so automatically make it a good market for buyers from other countries and thus lead to an increase in its exports of merchandise.

Second, gold, like any other commodity, tends to flow towards those countries where its value is highest. This means that gold naturally seeks those countries were prices are lowest. If, therefore, any country is suffering from abnormally low prices, whatever the reason, some portion of the world's gold is drawn to it and its exports are increased accordingly.

Third, in the long run the exports of merchandise from any country must equal its imports. Any difference or so-called balance in any year must be offset by invisible items, such as securities and credit extensions between banks. These credits in the course of time must be liquidated by the shipment of goods.

7. *International payments.*—Payment for goods bought in foreign countries are effected thru the agencies of banks and so-called bills of exchange, the

method being essentially the same as that followed within a country when debtor and creditor live in different cities.

The American exporter of wheat makes a draft upon the consignee for the amount due him and gives his draft to his local bank for collection. As drafts on London are acceptable the world over, just as drafts on New York are acceptable at par anywhere in the United States, we will assume that the draft is in pounds sterling, and as before the war, the pound is equivalent to $4.86 2/3. The American banker will forward the draft with bill of lading and insurance policy to his correspondent in London, who will present it for acceptance to the consignee and credit the American banker with its present worth.

By such transactions the American banker keeps a balance to his credit with his London correspondent and is able to sell drafts on London to any of his customers who wish to make remittance to Europe.

Thus exports create the supply of foreign exchange, that is, they build up the balances that stand to the credit of a country's banks. Imports constitute the demand for foreign exchange. If at any time the demand exceeds the supply so that the foreign balances of the banks of a country become abnormally low, then either gold must be exported or a credit balance be built up by the shipment of securities.

If gold is exported beyond a certain amount, the market prices of some commodities will sag and an increase in the exports of such commodities will ensue, thus obviating the necessity for further gold exports.

8. *Favorable balance fallacy.*—The fact that the nature of foreign trade is not generally understood is shown by the survival and common use of the expression "favorable balance of trade" in connection with the difference between merchandise exports and imports. The phrase is several centuries old, having been coined in the days of the Mercantilists, who believed that foreign trade was advantageous only insofar as it caused an inflow of the precious metals. Large exports and relatively small imports were thought desirable, for then a balance existed which had to be paid in gold and silver.

It must be evident to the reader that it is utterly illogical to speak of any balance of trade as being favorable to a nation. The difference between a country's exports and imports of tangible goods is only an apparent balance, for it is always offset by invisible items which do not appear in the statistics of trade.

The trade of England and the United States before the European war furnished excellent illustrations of the conditions which bring into existence a so-called balance of trade. The people of England had large investments in foreign countries on which the interest and dividends amounted to many hundred million pounds. The English investors received their interest or dividends in the form of drafts or bills of exchange, payable in gold at English banks, but the countries from which these drafts came did not send gold to London to provide means of payment. That would have been impossible, for many of England's investments were in countries which possessed very little gold, their money being either paper or silver. Furthermore, it was not necessary to send gold. Commodities possessing equal value were shipped instead and bills of exchange representing the value of these commodities found their way into London banks in a volume sufficient to provide a fund for the payment of the interest and dividends due Englishmen on their foreign investments.

Thus it happened that for many years England's imports of merchandise were largely in excess of her exports. The Mercantilists would have called this an unfavorable balance. Yet it is evident that the words "favorable" and "unfavorable" possess no significance whatever in connection with the facts. The statistics of England's trade showed merely that she was a creditor nation.

The United States, on the other hand, for fifty years before the European war was a debtor nation. Foreigners had invested heavily in its various enterprises and were receiving large sums in the payment of interest and dividends. Furthermore, the overseas' trade of the United States was carried in foreign bottoms and the freight charges, amounting to over one hundred million dollars annually, were paid to foreigners. These and other invisible items of trade, together with the imports of merchandise, constituted a demand for foreign exchange offsetting the supply created by the exports. Naturally, therefore, the exports of merchandise from the United States were largely in excess of the imports. The American newspapers, when publishing the annual statistics of their country's foreign trade, never failed to refer with pride to the huge excess of exports as if it somehow indicated great prosperity. Yet of the conditions which caused the existence of that excess some were regrettable, as, for example, our dependence upon foreign shipping, and none could be regarded as a matter for pride unless a nation has a right to be proud when given evidence that it is paying its debts.

We might conclude this section by certain general propositions each of which is a corollary flowing from the preceding discussion.

First, when a country is borrowing capital from foreigners its imports of goods will tend to exceed its exports.

Second, when the people of a country begin to invest capital in foreign countries the exports of that country making the investments will for a time tend to exceed the imports.

Third, when the people of a country have large investments in foreign countries on which interest and dividends are paid, the imports of that country will tend to exceed the exports.

9. *The surplus fallacy.*—We must briefly consider the common idea that the chief advantage of foreign trade lies in the fact that it enables a country to get

rid of its "surplus" products. It is assumed that America produces a surplus of wheat and cotton, that England produces a surplus of manufactures, France a surplus of wines, India a surplus of tea, and so on, and that foreign trade must be encouraged in order to dispose profitably of these various surpluses.

The use of the word "surplus" in this connection gives the unthinking man an entirely erroneous impression, for it gets the cart before the horse. It implies that foreign trade is a device to get rid of a surplus product, whereas the so-called "surplus" was brought into existence because of the demand created by foreign trade.

Let us imagine, if possible, that the United States was absolutely cut off from the rest of the world and that, therefore, it had no foreign trade. Evidently then our farmers would produce only as much wheat as they could sell at a satisfactory price to their own countrymen. Except as they erred now and then in their estimates of the home demand, there would never be any surplus.

As a matter of fact the so-called surplus of America's products, which is exported to foreigners, constitutes merely that portion of its products which foreigners will buy at higher prices than Americans would be willing to pay for the entire product. The unit price paid abroad may sometimes be less than that in the United States, but in such cases the total price for the entire product is higher than could be obtained were it all thrown on the home market. All commodities, including gold, seek the markets paying the highest prices. The export of a commodity is always evidence that the home market will absorb no more of it at the price that foreigners are willing to pay. Any talk about a surplus which must be exported is illogical and unscientific.

10. *Volume of a country's foreign trade.*—In every country business men take much more interest in the exports than in the imports of merchandise. Measures and plans for the enlargement of exports, for the opening up of new markets for the country's products, constitute a perennial topic for editorial discussion in the newspapers and always have the lively support of commercial bodies and governments. This is the natural point of view of the mercantile community, intent upon securing customers for its goods. That in return one nation must buy the products of other nations they are well aware, but they do not consider it their province to push such purchases. On the other hand, this appears to them to be distinctly the problem of the other nations and one which can be properly left to them.

The general public too often misses this point of view and invests exports with a peculiar virtue. The public apparently assumes that the world's markets, if they are only properly studied and exploited, can be made to absorb an unlimited quantity of any country's produce. To the other side of the subject, namely, imports, very little thought is given. Yet it must be evident that no country can sell largely to foreigners unless it in turn buys largely, for in the long run the imports must offset the exports.

In the last analysis, therefore, the volume of a country's foreign trade depends upon the desire of its people for foreign goods quite as much as upon their ability to produce goods which foreigners are anxious to buy. Practically it is wise for the business men of any country to use every effort to open up new markets, whether at home or abroad, but it is unwise at the same time to seek to prejudice people against the consumption of foreign goods. People vaguely think of foreign trade as a sort of fight between nations, those who sell the most and in the greatest number of markets being looked upon as victorious, while the others are regarded as having been beaten in trade. After the close of the world war there was much talk of this sort in Europe as well as in America. One heard and read much about the inevitable economic warfare that was to ensue and the inevitable bitterness that would follow. All talk of this sort is irrational and unjustifiable, and underlying it is the fallacious notion that trade is a one-sided affair, that nations can sell more without buying more.

The United States is a big country possessing a great variety of resources. Minnesota and Pennsylvania both have iron mines and are competitors in all markets, but the people of those two states are not embittered toward one another. California and Florida, both fruit growers, are friendly rivals, each realizing that it must deserve its markets if it is to retain them. The nations which crushed the demon of militarism in Germany are now struggling to regain the markets which were lost during the war. The success of any one should not cause bitterness or resentment among the others. It should rather spur the others to render their methods of production and distribution more efficient and to increase their understanding of the needs and tastes of the various peoples whose friendly patronage they desire.

11. *International finance.*—Must a country establish banking facilities abroad before it can build up a large foreign trade? This question suggests the old conundrum "which came first, the chicken or the egg?" In each case all we can say is that the two are interdependent. Without the egg there would be no chicken, and without the aid of banks trade can make little progress.

For over two centuries London has been the financial centre of the world and a sterling bill, redeemable in gold in London, has served as a sort of world money acceptable everywhere as the equivalent of gold. England's financial prestige is the direct outgrowth of her enterprise and liberal commercial policy. The Union Jack, protected by the British Navy, is a familiar ensign in every commercial port. In every market can be found men who are buyers of English goods or of goods transported in British bottoms, and also men who are exporting their native products to the English markets or to other foreign markets thru the medium of English merchants.

It is this vast and varied trade of the United Kingdom that has made the sterling bill, as a draft on London is called, an acceptable means of payment between business men in all parts of the world. The fact that before the outbreak of the war in Europe a sterling bill was always redeemable in gold in London undoubtedly gave London some financial prestige, but that fact alone could not have made London the world's financial centre. The commanding position of that city is due, not mainly to its wealth nor to its sound financial policy, but to the world-wide trade which its merchants and merchant marine have fostered.

If the foreign trade of the United States is to develop normally, its banks must have branches and other trusted representatives in foreign countries. In this way proper credit relations can be established and convenient means of payment be created.

REVIEW

When is a "favorable" balance of trade said to exist? Explain what is meant when it is said that actually there is no such thing as "balance of trade."

What is meant by "visible" and "invisible" exports and imports?

Explain why the investment of large sums of money in foreign countries by the people of one country at first produces an excess of exports over imports in that country to be followed later by an excess of imports over exports.

Why must a country establish banking facilities abroad before it can build up a large foreign trade?

CHAPTER XIV

RENT

1. *Theory of distribution.*—Thus far we have been concerned mainly with the production of goods and with the principles governing their value and exchange. In this and succeeding chapters we shall consider the principles governing the distribution or sharing of new wealth among those who have claims upon it because of the part they played in its production.

Economists usually enumerate three factors of production, namely, land, labor and capital. In reality there are four. Land, labor and capital not wisely directed are unproductive. The human brain, therefore, is the fourth factor, and it is the most important of all. Land and capital are dead, inert things incapable of bringing new wealth into existence unless wisely manipulated. Business and industry do not prosper unless directed by intelligence. Hence in the business world we find a set of men called entrepreneurs directing business activities and receiving as a reward a considerable share of the new wealth created.

The share claimed by the owner of land is called rent. That going to labor is called wages. The share of the capitalist is called interest. The entrepreneur's reward is called profit.

The reader must not assume that the economist thinks of society as made up of four distinct classes of men. A single individual may be capitalist, laborer, land owner, and entrepeneur; in fact, many a farmer or small storekeeper or manufacturer may be all four of these, for he may be owner of the land and capital he uses and in addition to managing his business he may be also working with his hands. In the theory of distribution we seek to determine what are the laws governing the rate of wages, the rent of land, the interest on capital and the profits of the entrepreneur.

The reader should notice that the theory of distribution is not concerned at all with the physical distribution or transportation of commodities. It might perhaps more properly be called the theory of division, for its purpose is to explain how the world's new wealth is divided among various claimants.

2. *Broad meaning of rent.*—As commonly understood, rent is the amount of value, usually in the form of money, which one man pays to another for the privilege of using some portion of the latter's property. So rent may be paid for the right to cultivate a farm, for the privilege of occupying a house, for the use of a boat, or horse, or wagon, or any other article of value. The man who owns the article is known to the law as the lessor, the one who gets the privilege of using it is known as the lessee. In the case of land and buildings one is known as the landlord, the other as the tenant. Rent plays a most important part in

the modern business world and the rights of both lessor and lessee in most countries are guarded by a well defined system of law.

The reader may note that an analogy exists between rent and wages and interest. The man who works for you for wages gives you the benefit of his services. When you borrow money the capitalist surrenders to you the productive power of his capital. In each case the right to use a certain productive power is turned over to another by its owner. If you cultivate another man's farm as his tenant, the rent you pay him is compensation for the right he gives you to profit by using his property. In each case you pay for a satisfaction obtained thru the use of productive power belonging to other persons. This essential similarity between rent, interest and wages has led some economists to lump them together under the single term rent, but this is inadvisable, for it is not in accord with popular usage. Furthermore, the conditions determining rent, wages and interest are in some respects fundamentally different.

3. *Economic rent.*—In most treatises upon political economy the word rent is usually given a narrow signification, meaning only the compensation which is paid for the use of land or natural resources. Land is given the broadest possible signification, being made to include all kinds of natural resources,—soil, lakes, rivers, waterfalls, mines, forests, etc., in fact everything on the earth which is capable of ownership and of value to man.

The distinction between land rent and other forms of so-called rent is made because the natural resources which the economist speaks of as land are limited in quantity and cannot be increased by the efforts of man, whereas other rentable articles are the products of human labor and their supply is capable of indefinite increase. The owner of land is in a sense a monopolist. He possesses something for which there can be no substitute, and he has reason for believing that his possession will increase in value as population grows and the demand for the products of the land increases.

4. *Rent of buildings.*—Houses represent an investment of capital and are not built for rental unless it is estimated that the rent paid by tenants will be sufficient to yield a fair rate of interest upon the capital invested plus a sum sufficient to provide for taxes, repairs and depreciation. If the population of a town is growing, the increasing demand for houses tends to cause rents to rise and so to encourage the construction of more houses. As a result, building rents in any town or city in the long run yield only a reasonable return on the capital invested in their erection.

5. *Ground rents in cities.*—The rent which a city tenant pays is in theory divided between two persons, the owner of the land and the owner of the building. Both, of course, may be the same person, in which case we may think of him as being the recipient of two kinds of rent, ground rent and building rent. In a growing and prosperous community the ground

rent tends to increase, whereas the rent of a building tends to grow less, since it is in competition with newer buildings with more improvements. If a lot is in the part of a town or city which is developing rapidly, it is quite possible for the ground to become so valuable or so much in demand that the existing building on it may be torn down and one entirely different in style erected in its stead. Changes of this sort are constantly taking place in towns and cities where population is rapidly increasing.

6. *Law of economic rent.*—David Ricardo, the English economist and financier, early in the last century worked out the theory or law of rent which is now generally accepted by economists. The reader must bear in mind that the Ricardian law applies to land and not to buildings.

Ricardo recognized the fact that different lands possess different degrees of fertility; that some lands are so poor that their yield under cultivation barely offsets the expense, while other pieces of land are so poor that a man cultivating them cannot earn a decent living for himself and family. Ricardo argued that this latter land, on which tenants could not make a living, could not be rented at all. He called it, therefore, "no rent land." Land which barely yielded a living to the tenant he called "marginal" land. The tenant might pay a nominal rent, enough to cover taxes and enable the owner to keep the buildings in repair, but, strictly speaking, the land itself would yield no rent unless the tenant and his family were willing to content themselves with unusually hard conditions of living.

Ricardo assumed that, as a rule, a certain standard of living exists in every community and that tenants, consciously or unconsciously, insist upon the maintenance of this standard for themselves and their families. He also assumed that tenants compete with one another for the right to cultivate different pieces of land, and that this competition is so keen that the owner of an unusually fertile piece of land is able to exact a rental so great that the average tenant has left barely enough to enable him to maintain his accustomed standard of living. It would follow theoretically, therefore, that a tenant cultivating a good farm would pay a high rent and live no better than one who cultivated a marginal farm and paid no rent at all.

Briefly summarized, the Ricardian law may be stated as follows: The rent of a piece of land in any community is equal to the excess of its productivity above that of the poorest piece of land under cultivation, namely, the marginal land. Or the law may be stated thus from another point of view: The rent of a piece of land in any community equals that part of its produce in excess of the amount necessary for the maintenance by the tenant of the prevailing standard of living.

Let us assume that a satisfactory standard of living in a certain community can be maintained by the expenditure of one thousand dollars. Then a farm the products of which under cultivation did not have a value in excess of one thousand dollars would, according to the Ricardian law of rent, be a marginal farm. For the privilege of cultivating it the ordinary tenant would not be willing to pay rent. If an adjoining farm, possessing a more fertile soil, yielded under cultivation, with the same outlay of labor and capital, produce worth two thousand dollars, it is assumed that competition among prospective tenants would result in the owner getting a rental of one thousand dollars, leaving to the tenant produce worth one thousand dollars for his own maintenance. If a third farm in the same neighborhood possessed so much very fertile soil that the average tenant could make it yield crops worth five thousand dollars, its owner would be able to rent it for four thousand dollars.

7. *Economic productivity.*—It is important to note that the rent of a piece of land depends upon two circumstances; first, its fertility or crop-yielding capacity; and, second its location or distance from a market. In other words, the rental value of land depends upon its economic productivity; that is to say, upon the value of its products. If a farm is located twenty miles from a market, it is evident that its crops will be worth less in the field than if it were only one mile from market, the difference in value being due to transportation costs. If a man owns two farms identical in fertility and capable of the same yield, one five miles from the city, the other one

hundred miles distant the farm nearer the city will evidently possess the greater value and command a higher rental.

In the old days of ox teams location was a very important factor in the determination of the rental value of land, for transportation was slow and costly. The horse, the railroad and interurban trolley lines with their express and freight cars reduced costs, and so tended to raise certain rents and land values. Now the motor truck is reducing costs still further, and by so doing is lowering the margin of cultivation, that is to say, it is making it worth while to cultivate land which formerly could not be cultivated at a profit on account of its remoteness from a market. Nevertheless the location of a piece of land must always be one of the factors determining its economic productivity and its rental value.

8. *Do all tenants fare alike?*—If we grant the truth of the Ricardian law of rent, it would seem to follow that men who hire the farms of others and cultivate them are bound by an iron law preventing them from ever earning more than a bare living. It would seem that a tenant who wished to lay aside a little something for a rainy day would be able to do so only by dire and painful economies.

But sad inferences of this sort are not warranted. Farmers, whether they be tenants or owners, vary greatly in ability, in knowledge of soil and climate, in thrift, in energy, in foresight, in power to plan. Men differ in productive power quite as much as the farms they cultivate. In every community you are quite as likely to find what might be called a marginal man as to find a marginal farm. Whatever his opportunities, he seldom makes more than a living and never accumulates a bank account. The owner of a good farm will not accept him as a tenant on account of his ignorance and thriftlessness. You will usually find him on a poor piece of land and living in a ramshackle house, with his horse and cow under a barn with a leaky roof.

If we should grade the farms in any community into three classes, A farms being the best, B farms being somewhat inferior, and C farms marginal, we would find different classes of tenants competing for these different classes of farms. An unusually industrious and thrifty farmer might hire one of the marginal farms at a nominal rent and make it yield twice what the average tenant was capable of getting out of it, or a very intelligent young man who had been brought up on a farm and had been sent by his father to an agricultural college might, as a tenant of one of the best farms in the community, increase its yield and build up a bank account. His income, much larger than that of the average farm tenant, would be the product of his brains and personal qualities rather than of the farm. Essentially it is profit, as will be explained in a later chapter.

9. *Effect of improvements.*—During the last fifty years scientists have devoted a great deal of time to the study of agriculture, and remarkable progress has

been made in farm processes, in methods of cultivation, and in the use of fertilizers, and at the same time there have been great improvements in farm machinery. All these changes have had an influence upon the rent of agricultural lands.

Any improvement which makes land more productive tends to cause a rise of land rents, for the tenant is able to give the owner a larger amount of produce and still have enough left for his own support. It would seem therefore that the tenant does not get the benefit of improvements; that altho he is able to produce more, all the surplus goes to the land owner. Theoretically, this inference is correct, but in practice it is incorrect. The first effect of improvements is a tendency to lower prices for farm products on account of the increase in supply. If a tenant is paying a rent of five hundred dollars a year, he will be obliged, prices being lower, to sell a larger amount of his produce in order to get the money. But he will be able to buy foodstuffs which he himself does not raise at lower prices than formerly, and, without his planning or intending it, his standard of living tends to rise. Thruout the community the same forces are at work. Food of all kinds is more abundant and cheaper and people generally insist on living a little better than they did in former years.

Nevertheless, as a general proposition it is true that the tendency of improvements in agricultural methods and machinery is to raise the rent of land. They tend, of course, to lower the margin of cultivation, for they make possible the cultivation of poorer lands at a profit.

Improvements in transportation facilities tend to raise the rent of land in certain territories and to depress rent in other places. The lands which enjoy the advantages of the improved transportation command a higher rent, but land owners in other territories may suffer on account of the increased supply of farm products and the lower prices. For example, the construction of railways west of the Mississippi after the Civil War, connected the markets of the east with millions of fertile acres in the west and northwest, and so lowered prices of farm products that many farms in New England became unprofitable and were abandoned.

10. *Changes in the standard of living.*—Methods of cultivation remaining the same, when the standard of living in a rural district rises, the rent of land falls. Conversely, a lowering of the standard of living tends to raise land rents.

In a preceding section (page 245) we assumed that a certain young man, because of his ability and education, greatly increased the productive capacity of a farm, and that he did not pay more than ordinary rent because other prospective tenants, being untrained, could not compete with him. Let us suppose that the success of this young farmer gives a boom to education, and that most of the young men of the district go thru an agricultural college before settling down to their life work. If they become tenants of farms, there will be a great increase in the harvests, but will not the land owners get most of the benefit, for will not these young men, competing with one another, raise rents until nothing is left for them except a bare living?

That is exactly what the enemies of landlordism affirm, but there is good reason for doubting their assertion. The education the young men have received would undoubtedly have made them more ambitious than the ordinary young farmer and would have made them insistent upon higher standards of living than had been satisfactory to their ancestors. To them farming, as it were, would be a profession. They would insist upon rewards commensurate with their training and ability. If they doubled the yield of the farms in the district, both landlords and tenants would doubtless share in the benefits. The landlord would receive a higher rent and yet the tenant would have much more as his return than the tenants of former days. The public would also share in the benefits of the education of these young men, for the increase in production would mean lower prices of farm products.

In the United States during the last two or three generations there has been a notable lifting of the farmer's standard of living. Various forces have combined to bring about this result. Railroads and interurban trolleys have made nearby cities accessible to almost every farmer's family. The children of many farmers have gone to the cities and become prosperous, some in the professions, some in business, and some in trades. Farmers' children, especially their daughters, knowing something about the comforts and luxuries of city life, have insisted upon more comfort and beauty in their own homes. All social changes of this sort tend to lower the rental value of farms. As tenants demand more, the owner must inevitably accept less.

In the preceding section we mentioned that western railroads were indirectly responsible for New England's abandoned farms. During these same years the standard of living among the New England farmers was rising, and this fact doubtless hastened the abandonment of many a farm. But during the last twenty years many foreigners, mainly Swedes, Poles and French Canadians, have settled in New England, bringing with them standards of living considerably below those of the native New Englander. As a result many of the abandoned "no rent farms" are again under cultivation.

11. *Rent and land values.*—The value of a piece of land is often said to be the capitalization of the net rent it commands. For example, if a piece of land commands a rent of one thousand dollars a year in addition to such a sum as is necessary for taxes, for repairs, and to cover depreciation of buildings, the land will be considered worth twenty thousand dollars if five per cent is the current rate of interest. The present value of a piece of land is evidently the outgrowth of its rental value. If it yields no rent and is put on the market for sale, buyers in bidding will think

mainly of the timber or minerals which can be removed from it and sold.

The statement that land value is the capitalization of rent, while true, is not the whole truth. In estimating the value of land men always give consideration to forces that are likely to be operative in the future. Is it likely that a new railroad may make the market more accessible? Is it picturesquely located, and can it be made more attractive to city residents who desire a summer home in the country? Could it be made to yield a profit if combined with adjoining land, so that cultivation could be on a large scale? Many matters of this sort are taken into consideration consciously or unconsciously when men are estimating the value of a farm. They capitalize not merely its present earning power but its probable future earning power.

It is well here to call attention to a popular fallacy, namely, that high agricultural rents are due to the high prices of farms. In some quarters land owners are censured because they charge such high prices for land, thus compelling purchasers to exact high rents from tenants. In this fallacy the proper relation of cause and effect is reversed. High rents are the cause of high prices of land and not the effect.

12. *City rents and location.*—In towns and cities location is the all-important factor determining rent. We may in a rough way say there are three classes of property in every city: (1) the business district, (2) the residence district for the rich and fairly well-

to do, and (3) the tenement house district, or the quarter where the poor live. In any large city these districts could be variously subdivided. The business district, for instance, might contain a financial quarter where banks are numerous, a wholesale section, and a fashionable shopping or retail district. Outside all these on the outskirts of the city might lie a manufacturing district.

Land located in the heart of a business district, at the intersection of the most congested thorofares, usually commands the highest rental and the highest market price. It is on sites of this sort in American cities that so-called skyscrapers are built. The owners or lessees of such sites seek by the erection of tall buildings to develop the fullest possible earning power latent in the site.

As a general proposition it may be said that the value of a city lot depends mainly upon the number of people passing it every day. The nature of the business that can be made to yield the greatest profit in a building upon a certain site, varies with the character and spending power of the people passing by. If the passersby are mainly poor people on their way to work, the shops must cater to their needs. If the passersby are fairly well-to-do business men, the shops will be of higher class, sales will be larger in volume and profits larger, and the land owner will get a higher rent in consequence.

We need not go into a detailed discussion of the various conditions affecting the rental value of city sites in the business district, nor need we discuss in this connection the application of the Ricardian law of rent, for within a city no such thing as a "no rent" site can be found. In estimating the value of a city lot, men take into account the future demand for it quite as much as the present. It may be unimproved and therefore be yielding no rent at all to the owner; yet its market value may be high because of the certainty that the growth of the city and the development of transportation facilities will soon bring it into great demand as the site for a business block or apartment house.

City lots possess economic productivity quite as much as do farms. The farm yields an income in the form of commodities. The city lot yields an income in the form of profit as a result of trade. We need not stop to discuss whether either income is proper and legitimate. Popularly the farmer is thought of as a producer of real wealth, and few people begrudge him any comfort he may enjoy as the result of his work. It is taken for granted that the farmer adds to the country's wealth. But the merchant who is paying high rent that his store may be located on one of the city's busiest streets, and the land owner who receives the high rent, are often spoken of as if they were not really entitled to what they receive, on the ground that they are non-producers. When we consider that the object of economic activity is the production of psychic income or the satisfaction of human wants, we must admit that the merchant who chooses a location that suits our convenience and who takes the trouble to arrange and display his goods in such fashion as to make it easy for us to make choices, performs a service for us almost, if not quite, as important as that performed by the farmer or the manufacturer.

In the residential district of a city rents depend upon a number of very subtle influences. The very rich, as a rule, own their homes. Many of the near rich, wishing to be thought better off than they really are, are willing to pay high rents for houses or apartments in the neighborhood of millionaires. Hence within the residence district of a city, rental values often vary most freakishly, a building lot in one quarter being worth much less than one in another quarter. As a result of this difference in the value of building sites, the rent of apartments or houses of the same character and desirability *per se* differ in different parts of a city.

The rental value of city lots is greatly affected by changes in transportation facilities. In New York, for example, the extension of the subway into the Bronx and into upper Manhattan tended to raise rents in the Bronx and to lower the rents of apartments and houses of a certain class south of Forty-second Street. This tendency after the outbreak of the war in Europe was counteracted by the cessation of building due to the high cost of materials, and by the influx of people who came to the city from all parts of the country as a result of war business and war prosperity.

13. *Rent and the prices of commodities.*—Most

economists agree with Ricardo that rent cannot be regarded as a cost of production, and that, therefore, it is not an element of price. This is not the popular view. People are prone to think that high land rents are somehow responsible for high prices of foodstuffs. This view, indeed, is supported by some economists. Nevertheless it is erroneous.

The higher the price of farm products, the greater the money rent a tenant can afford to pay.

High prices of commodities, therefore, are the cause of high rents. In its relation to prices of commodities the rent of land is an effect, not a cause.

If landlordism were abolished by law and all land owners were forced to cultivate their own land, land rent would disappear, but the prices of farm products would not go down. Certainly no more land would be cultivated than now, for land owners would not cultivate poor lands which tenants now refuse to hire. Indeed, they might decline to cultivate that marginal land which yields to the tenant a bare living, in which case the supply of farm products would lessen, and prices would rise as the result of the abolition of rent.

In a city the individual business man undoubtedly thinks of the rent he pays as one of his costs. But insofar as his rent is a payment for the privilege of occupying an advantageous location, that rent cannot enter into the prices of the goods which he sells. A high rent paid for an advantageous location may secure him larger sales and greater profits. A store on a frequented thorofare for which the proprietor pays a rental of ten thousand dollars a year can not charge more for its goods than a store on a side street which rents for one thousand dollars a year, and which sells the same kind of goods to the same classes of customers. The first store commands a higher rent than the other, not because its location permits higher prices, but because its location enables it to get more custom, sell more goods, and so make a greater profit.

In this connection the reader must be careful not to confuse ground rents and building rents, for the latter represent the interest upon an investment of capital. If a man leases a city lot for ninety-nine years for the purpose of erecting a building on it which shall serve as a department store, the rent he pays for the lot will depend upon the advantages of the location. To him personally it will be one of his costs, but he cannot let it affect the prices of the goods he sells. If the rent is high, it is because business men, his competitors, are of opinion that the location is a most advantageous one, one where a large volume of business can be transacted. But if he erects an unusually fine building and fits it up artistically and luxuriously—that customers may be attracted and pleased, he makes an outlay of capital for which either he or his customers will have to pay. He may attract customers who will be willing to pay a trifle more than normal prices because of the pleasure of trading in a beautiful environment, or he may sell at market prices and do such a large volume of business that his gross profit covers the ground rent, the interest on his building investment, and a satisfactory net profit for himself.

REVIEW

Distinguish between ground rent and building rent.

What factors tend to fix the rent of agricultural lands; of city buildings?

Show how the advent of the motor truck has affected economic productivity.

Do high rents cause high prices of land and if not why not?

CHAPTER XV

INTEREST

1. *Reward of capital.*—Capital is a product of labor used in the production of other goods. It consists of so-called production goods, its end and purpose being the production of more wealth.

A carpenter's tools are part of his capital. The house he builds for you to live in is regarded as a consumable good, not as capital. Farm implements are capital; they have value solely because of their use for the cultivation of the soil. Potatoes and buckwheat cakes on the farmer's breakfast table, however, are consumable goods.

Since the labor of a man when he has the aid of capital is more productive than when he works without it, a certain share of the product of the labor is allotted to capital and is called interest.

2. *Compensation for past labor and sacrifice.*—A capital good does not satisfy directly any human want; it merely renders easier the production of goods that do satisfy wants.

The earliest forms of capital were the various rough implements devised by primitive man for hunting and fishing purposes. The savage who made the first bow and arrow, or who built the first dugout canoe, or who sharpened the first crude fishhook, undoubtedly devoted much time and labor to his task. He did the work, not because he enjoyed it, nor because he expected to get any pleasure shooting arrows at a target or into the sky, or cruising about in his canoe, but because he believed the bow and arrow, the canoe and the fishhook were going to make it easier for him to get food for himself and family. If it so happened that they did not render this service to him, he would have felt that all his labor was wasted.

So with all forms of capital. The real reward of the labor which produces them lies in the future and is derived from their productive power.

3. *Money and capital.*—In business life, capital is always thought of and spoken of in terms of money, and interest is thought of as the amount of money which the borrower pays to the lender for the use of some portion of the latter's money.

But we must not confuse the two terms, capital and money, for they are two entirely different things. Money, since it is a medium of exchange which facilitates production, may be regarded as capital when used in business, but not when spent for a pleasure purpose. The amount of capital in a country does not depend upon the amount of money in it. The capital consists of factories, railroads, raw materials, machinery, etc. The prices of these articles depend upon the amount of money, or upon the value of the money metal if its free coinage is permitted. The fact that the supply of money in a country is increasing is no evidence of an increase of its capital or production goods. An increase in the money supply merely tends to cause an advance of prices.

4. *Money and the interest rate.*—In modern times virtually all lending of capital is done thru the medium of money and credit, and interest is paid at a rate determined by forces which we shall consider later. Here it is sufficient to call attention to the fact that money itself produces nothing. The borrower wants it solely because he can easily convert it into the things he can utilize in his business or industry. By borrowing money and credit a merchant is able to carry a larger stock of goods on his shelves, and to him those goods are capital, altho to his customers they may be consumable goods. With borrowed money the manufacturer is able to enlarge his plant, buy more raw materials and increase his output.

The merchant gives added value to the goods he handles by having them in a place that suits the consumer's convenience, while the manufacturer accomplishes the same end by changing the form of goods. In these processes money plays no part except as a medium of exchange. The interest which the lender receives is in the form of money, but it was earned not by the money he loaned, but by the capital goods for which that money was exchanged by the borrowers.

5. *Prejudice against interest.*—Because of the popular misunderstanding of the nature of capital, there exists in various quarters a strong feeling that the capitalist is not entitled to the interest he exacts

from borrowers, since money can produce nothing. By what right, it is asked, does the man who lends it demand compensation? So strong was this prejudice only a few centuries ago that the money lender was usually despised, and all interest paid for the use of money was regarded as usury, that is, as being undeserved. At the present time the term usury is applied only to an interest rate which is regarded as exorbitant, such, for example, as the so-called loan sharks in cities exact from people compelled by misfortune or necessity to borrow on the pledge of personal property. Any rate of interest that exceeds the productive power of capital is usury.

The popular prejudice against capital will not disappear until its nature is more generally understood. If the canoe that our savage built proved a great assistance to him in his fishing excursions, some of his fellow-tribesmen would doubtless beg for the privilege of using it, and every man will admit that he would have a right to make them pay for the privilege. Nobody objects to the fact that a man charges you for the use of his boat, for the use of his horse and wagon, or for the use of his shop and tools. In the popular mind these are all cases of rent, yet essentially they are all cases of interest. Suppose I need a motor truck in my business and have not enough money to buy one. I might hire a truck and pay a rental for it, or I might borrow money and buy a truck, paying interest on the borrowed money. The truck is the capital. I should expect it to help me earn the rental in the one case, or the interest in the other. If I hire the truck, I should of course have to pay as rental a larger sum than I would pay for the borrowed money in form of interest, for the rental would properly include, in addition to a fair price for the use of the truck, a certain sum to cover the loss in value due to depreciation or wear and tear. If a truck lasted only five years, and then became worthless, its owner would naturally plan to get back its full value in the course of five years, as well as a fair rental for its use. On the other hand, if I borrow money from the bank, I should expect the truck to increase my profits by at least the amount of the interest and the debt I incurred in its purchase, for otherwise I should be out of pocket.

Whether I hire the truck, or borrow the money to buy one, my hope of gain or profit lies altogether in the earning power of the truck. The lender of the money is entitled to his compensation quite as much as would be the owner of a truck if I hire one. Economically I get the same service in either case.

6. *Various kinds of capital.*—Capital is commonly divided into three classes of goods, industrial plants with their machinery, raw materials and food-stuffs. These divisions are, of course, capable of many subdivisions, but it is sufficient here to note the fact that the productive power of the various classes of capital goods is not the same, and that the productive power of any one form of capital varies with circumstances.

For example, certain occupations are not in good repute and men will not invest their capital in them unless the rewards are above the ordinary. A saloon was a good illustration of this kind of business. Other occupations are uncertain in their yield, being dependent upon the seasons or upon the popular whim, and a man will not risk his capital in them unless he sees the possibility of a large return. On the other hand, certain kinds of business are so easily established and managed and require so little preliminary training, that many men go into them and invest in the aggregate a large amount of capital, but the return on this capital on account of the excessive competition is comparatively small. The small grocery stores and cigar shops found in every city represent capital investments of this sort.

The greatest returns on capital are earned by capital when it is employed by men who have a genius for business, men of ideas, of initiative, of inventive ability. Such men are quick to apprehend changes in the popular tastes and in the demand for various kinds of goods. Sensing a growing demand for an article, they invest more capital in its manufacture and make their capital yield more than ordinary return. During the first two decades of the twentieth century large fortunes were made by men who foresaw the usefulness and increasing popularity of the automobile. They made their capital unusually productive by investing it in the materials which entered into the manufacture of automobiles.

7. *Foodstuffs as capital.*—Let us consider wheat as a typical foodstuff. When it is harvested by the

farmer it is not ready for consumption, and is not a consumable good. To the miller it is a capital good, and he converts it into flour which, as a capital good is sold to the baker, who converts it into loaves of bread. These loaves of bread are part of the baker's capital, and they do not cease to be capital until they become so-called consumers' goods on the tables of his customers.

It is possible to regard a loaf of bread as being a capital good even when it is on the consumer's table. If the consumer is a worker and eats the bread in order to retain his health and strength for his day's work, the bread is consumed with a productive end in view, and may fairly be classed as capital. If, however, the consumer is an idler, not engaged in business and performing for society no useful service whatever, the bread he eats cannot be classed with capital goods. In the one case the consumption of bread leads to an increase in production, in the other case it does not.

8. *Diminishing returns.*—It is well for the reader at this point to refer back to section 9 of Chapter V, in which is stated the general law of diminishing returns upon land, labor and capital. Since this law has a direct bearing upon the rate of interest, the reader must be certain that he understands its application to the case of capital.

The penny-in-the-slot machines found in railroad stations are a good illustration of virtually automatic capital, for the operation of these machines requires very little assistance from labor. The number of such machines that can be placed to advantage in any city is evidently limited. Ten machines in the best possible locations might earn 100 per cent on the capital invested, but if a second ten were added, the rate of income might fall to 50 per cent. Let us suppose that the machines cost one hundred dollars apiece, that one hundred machines are placed in different locations of the city, and that the return per machine has fallen to 10 per cent. If the owner is borrowing capital at six per cent and must set aside each year a sum equal to five per cent of his investment to cover the depreciation of his machines, he is manifestly making no gain. He has invested too much capital in the business and is the victim of the law of diminishing returns. If he has no competition, he will reduce the number of machines in that locality until he believes that he has found a number the operation of which yields him the highest net return after all deductions have been made for expenses and depreciation, and will seek to invest his surplus capital in some other business, or in some other locality.

That part of capital which yields a return barely sufficient to compensate its owner is called by economists the marginal unit of capital. It is the least productive part of a country's capital.

The owners of capital are always seeking to invest it in the most productive forms of enterprise. As returns from this or that industry or business decline toward the marginal point on account of the increasing investment of capital, or because the products of the enterprises fall in price because of lessening demand, capital shifts to other enterprises, the returns from which are greater. As a result, in any country where competition is lively, the marginal supply of capital shifts from industry to industry, and the net returns from enterprises of all sorts tend toward a common rate.

9. *Demand for capital.*—In any country the strength of the demand for capital depends upon three important circumstances:

First, the opportunities offered by the country for the profitable employment of capital.

Second, the existence of an adequate supply of labor properly trained and willing to work at reasonable wages.

Third, the presence of men eager to engage in business and industry, willing to assume all the risks and able to give wise direction to the employment of labor and capital. Economists call these men enterprisers or entrepreneurs; in common speech they are known as good business men.

It is from this third class of men that the demand for capital directly comes. Their reward is called profit, which is governed by circumstances that we shall discuss in a later chapter. The plans and enterprises of these men usually call for the use of more capital than they themselves own. Then they enter the money market or loan market and borrow. Evidently the rate of interest which a business man is willing to pay cannot exceed that which he can make it earn. If lenders demand more, they will do no business. We see at once, therefore, that the rate of interest is somehow related to and dependent upon the productivity or earning power of capital.

Some economists go so far as to maintain that the rate of interest is determined altogether by the productivity of capital, but they qualify this statement by the admission that the rate of interest depends, not on the earning power of capital in general, but upon the earning power or productivity of what they call marginal capital.

To illustrate: If so much capital has already been invested in the businesses and industries of a country that additional supplies cannot be made to yield a return of more than seven or eight per cent, then lenders must be content with a rate of interest somewhat below those figures, for otherwise business men will be under no incentive to borrow. This conclusion is perfectly sound. We must admit that the productivity of capital is a most important factor in determining the rate of interest.

10. *Loanable supply of capital.*—Men do not borrow capital goods. They borrow capital in the form of money and credit, and the available supply of it in this form is often spoken of as its capital fund. The amount of it in any country depends upon the productive power of the people and upon their thrift and willingness to save. As was pointed out in Chapter III, the savings of a man, no matter whether he produces and sells goods or sells merely his services,

finally take the form of money or credit and are usually invested in some enterprise or deposited in a bank.

The necessary result is that the loanable capital fund in a country corresponds with and represents the savings of those people who wish to let other people make use of their capital.

What is the force that impels people to save? This is an important question, for the supply of capital depends upon saving. The motives for saving are various, yet all have a common feature, namely, a regard for future needs and wants. A man may be thrifty and saving because he wishes to provide for the proverbial rainy day, or he may wish to have a competence in his old age, or he may desire to have his children well provided for, or he may have a keen desire to be very rich by the time he is fifty in order that he may live in luxury and ease, or indulge in the pleasures of travel and music and art. Whatever the motive, the man who saves, who does not spend all of his income in the satisfaction of present wants, is looking into the future and is in some measure under the domination of future wants.

Many men doubtless would lay aside part of their income in order to protect themselves against the contingencies of the future even tho their savings yielded them no rate of interest. Nevertheless the interest paid upon capital is a great stimulus to saving. A return of four per cent would satisfy certain thrifty people and make them save to the limit, while on people of another kind it would have no effect whatever.

An offer of 10 per cent if apparently genuine will induce saving on the part of men who will not be influenced at all by an offer of five per cent.

Differences of this kind exist among men, and for that matter among nations, for instance, the thrifty French and Dutch and the rather improvident Americans and Irish. To the very thrifty man who is induced to save by a promise of three per cent, the thought of possessing one hundred and three dollars a year hence gives greater satisfaction than he can get by spending at once the one hundred dollars in his hands. Other men are indifferent about the future unless four per cent is promised, and still others do not awake to the thrift motive until a much higher return is promised.

As a general proposition, it is safe to assume that saving in any country tends to increase as the rate of interest rises, and, conversely, to decrease as the rate of interest declines. Hence a rising rate of interest tends to enlarge the supply of loanable capital.

Since the marginal productivity of capital depends upon the supply, tending to decline as the supply increases, it is not remarkable that some economists hold to the view that the rate of interest is determined, not by the productivity of capital, but by the forces and circumstances which regulate the supply of a country's capital, especially by the relative values to its people of present and future goods. The advocates of this theory hold that the rate of interest represents a discounting of the future. If a bird in the hand is worth two in the bush, a man must be promised more than two birds in the future if he is to let go of the one bird he has in his hand.

11. *Demand and supply in the loan market.*—We need not attempt to decide which of these two theories is nearer the truth or the more satisfactory. It is enough if the reader understands that those borrowers in whose hands additional capital will be least productive—called marginal borrowers by economists—are most eager for a low rate of interest. What they can earn with new capital fixes the maximum above which the rate cannot rise if all the available capital is to be loaned. Among the lenders, on the other hand, we find men barely persuaded to save and lend, and ready to withdraw their capital from the market if the rate goes below a certain minimum. Theoretically, the rate of interest must be such as to satisfy both these classes of men.

Let us suppose that in a given market there are ten million dollars in the hands of lenders, all desiring the best possible investment. Among these lenders there are certain men who would withdraw some of their funds from the market unless they can get at least five per cent. Among the borrowers we shall find many different classes of men, some in businesses earning high profits and able if necessary to pay a high rate of interest, say 10 per cent. But their demand, we will suppose, would absorb only half a million dollars. Another set of men might use three million dollars profitably and pay eight per cent;

another set might use five million dollars at seven per cent and still make a gain. We have now found potential borrowers of eight and a half millions, but it must not be supposed that these borrowers, altho able to pay high rates of interest, are offering any such rates in the market. They are going to borrow as cheaply as possible, and the market rate will depend on the demand for the remaining million and a half dollars. If the market rate were six per cent, we will suppose that half a million might be loaned at that rate. This would leave a million dollars still seeking borrowers, and the rate must be lowered until it satisfies those borrowers who are least able and least willing to pay a high rate.

In other words, the law of supply and demand operates in the market for capital, commonly known as the money market, just as it does in the markets for commodities, where values are determined and prices fixed, and the rate of interest tends in the long run toward such a figure as will establish an equation between the supply of capital and the demand for capital.

In old communities the forces governing the demand for and supply of capital vary but little from day to day, and the rate of interest is therefore comparatively stable. In other communities, especially those where new opportunities for the use of capital are constantly turning up, the rate of interest is subject to greater variations.

REVIEW

What is the economic interpretation of capital? What are the three main divisions of capital?

Is interest, strictly speaking, a payment for the use of money?

What are the sources of loanable capital?

What three circumstances regulate the demand for capital?

What factors tend to establish interest rates?

CHAPTER XVI

WAGES

1. *Labor not a commodity.*—In this chapter we must consider some of the most vital and important subjects within the range of economics, namely, the complex forces which combine to determine the compensation of the man who works for another.

Labor is sometimes referred to as a commodity, subject like all commodities to the law of demand and supply. Laboring men, as a rule, protest against such designation. They resent it as an insult, and it is not strange that they do so. A commodity, whether animate or inanimate, is one of the products of labor in combination with land and capital, and has absolutely no voice in determining the price at which it shall sell in any market.

But labor is human service. It includes all kinds of work which men perform for others, whether in rendering service or in the production of commodities. The pay a man gets is commonly spoken of as wages.

When a man's services are hired by the year, his compensation is ordinarily called a salary. The needs and rights and pay of salaried workers are not commonly thought of as part of the labor question. They do not commonly think of themselves as laborers, and are not at all resentful when they hear labor called a commodity. Nevertheless, the laws governing the rate of wages paid to the humblest workman in a factory also determine the salary which shall be paid the president of a railroad. If the labor of one is a commodity, so is the labor of the other.

2. *Money wages and real wages.*—It is important to bear in mind at the outset the distinction between the money wage a worker gets and his real income. The latter consists of the goods which he is able to buy with his money wage, and necessarily varies in amount according as the purchasing power of money fluctuates. When the general level of prices is rising, a workman's real wage is declining unless his money wage is proportionately increased. And if prices are falling, the old money wage gives a workman greater command over commodities, so that his real wage is increasing.

During the period of the great war the rapid rise of prices, amounting in four years to something like 100 per cent in the United States, brought home to workmen generally the painful consciousness that their money wages were not their real wages, and many employers were forced to raise the rates of money wages. In a few instances employers in the United States, recognizing the unstable value of the dollar, entered into agreements with their employes whereby they agreed to increase the rate of wages at regular periods as the cost of living rose, the employes on their side agreeing to accept a reduction of wages if the cost of living fell. In view of the fact that the general level of prices is seldom stationary, it might be well for employers generally to have an understanding with their workmen that the money wages shall vary in some measure in accordance with fluctuations in the purchasing power of the dollar.[1]

3. *Demand for labor.*—The demand for labor like the demand for capital comes directly from the entrepreneur class. The entrepreneurs need labor quite as much as they need capital, and in the modern business world there usually exists keen competition among them. In the case of capital they look for a low rate of interest and the easiest possible terms of repayment. When seeking labor they are as much concerned about its efficiency and productivity as they are about the wages they will have to pay. However, in dealing

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[1] The practical difficulties of such a plan are numerous but they are not insuperable, if what is sought is an approximate rather than an absolute solution of the problem. In the first place, wages cannot be adjusted to the current changes in the purchasing power of money since both cannot be determined simultaneously. The wages of this month cannot be adjusted to the prices of this month, but might be adjusted to those of the month preceding. To do this, requires a resort to commercial price indexes such as Bradstreets and Duns. The government Bureau of Labor Statistics in its *Monthly Review* gives the government index, but it is always belated. For example, the issue of February, 1922, contains prices for December, 1921, but this issue was not distributed to the public till March, 1922. If it be required that wages be adjusted not to wholesale but to retail price movements, the problem becomes much more difficult. Commercial price indexes for retail prices are not available, and the government compilation above referred to relates to food only. Furthermore the question would arise whether there could properly be one retail price index, or whether it would not be necessary to establish a series of them for different sections of the country.

with the entrepreneur the owner of capital has an advantage over labor. Loanable capital exists in the form of money and credit, and its owner can transfer it from one market to another, or from one business to another almost in an instant and at slight expense. Labor, however, represents masses of individuals, men and women with established homes, their affections rooted in particular localities, their faculties trained for particular occupations. Hence labor is not so mobile as capital, and as a result the wages paid in certain industries at any given time do not represent perfect competition among employers for men.

The demand for labor is subject to certain important conditions:

First, their employers must be certain that there are markets awaiting fresh supplies of goods, and that the prices of goods will be high enough to yield them a profit after all expenses are paid.

Second, the employers must be able to obtain the necessary capital in the form of money and credit with which they can purchase the needed raw materials and machinery. The ability of the entrepreneurs of a country to undertake new enterprises and furnish work for more men is quite definitely limited by the amount of fresh loanable capital available in the money market, unless, of course, new capital is brought in from other countries.

This second condition was regarded as so important by the eminent English economist, John Stuart Mill, that he made it the fundamental principle of his theory of wages. To his mind, the demand for labor depended almost entirely upon the amount of capital in a country. A certain proportion of that capital would be expended upon machinery, another part on raw materials, and the remainder in the payment of wages. Since no owner of capital would willingly let it lie idle, the entire capital fund in a country was certain to be utilized in normal times, and the rate of wages would depend on the number of men seeking employment, among whom a certain portion of this capital fund would be divided. This theory was known as the "Wage Fund Theory" of wages and was very generally accepted by English economists between 1840 and 1870. Economists do not now accept it as an adequate explanation of wages, but the fundamental proposition on which it was based, namely, that the demand for labor is conditioned by the amount of capital seeking employment, cannot be denied.

4. *Supply of labor.*—No argument is necessary to prove that the rate of wages in any industry is somehow related to and dependent upon the supply of labor. It is a matter of common observation that wages go up where there are more jobs than there are men, and that wages tend downward when men are more numerous than jobs.

If the population of a country, because of immigration or because of a high birth rate, is increasing at a rapid pace, it is quite possible for the supply of labor to outrun the demand. Then among certain classes low wages and poverty are inevitable. Continued high wages and uninterrupted prosperity are not possible in a country if the growth of population exceeds a certain rate. Just what that rate is in any particular country it is practically impossible to determine. We must be satisfied with the general conclusion formulated by Malthus in his "Principles of Population," that the tendency of population in the past has been to outrun the means of subsistence. We observe this same tendency in all forms of animal life, and it is a regrettable fact that the great mass of mankind, altho endowed with reason, still hold that instinct and nature should determine how fast the earth's population shall increase.

The State by legislation cannot solve this problem of population, altho indirectly it may contribute toward its solution by prohibiting marriages among the manifestly unfit and by providing for all its children free opportunities for a broader and more practical education than they are now able to get.

5. *Productivity of labor.*—Labor and capital, working together under the direction of the entrepreneur, and making more or less use of land, produce the goods and services we enjoy. We have seen that the return to capital depends very much upon its productivity, and that the productivity of any given amount of capital, or unit of capital, tends to decline as the amount of available capital increases unless there is a corresponding increase in the demand for capital.

Labor is subject to the same law of diminishing returns. Every wise business man is constantly on his guard against unnecessary costs. He cannot afford to borrow more money than he needs merely to please capitalists, nor can he afford to hire more men than he needs merely to secure the favor of labor, for he is in competition with other men and will suffer if they are able to undersell him in the markets. So he seeks to equip his factory with the right number of machines in order that each may be run with the highest degree of efficiency, and to employ just the right number of men so that each shall be steadily at work, one not getting in another's way, or standing idle waiting for material to work upon. Having obtained for his factory the right number of men and machines, his demand for labor and capital is satisfied, unless he can get men at lower wages or capital at a lower rate of interest. In any office or store only a definite number of men can work to the greatest advantage. If more men are given employment, the total product or total amount of business done may be increased, but the product per man will be less.

A farmer may have one hired man at thirty dollars a month and make profitable use of him. But it does not follow that he might profitably employ a second man at the same wage, even tho the second man were equally good. The second man might add only the value of forty dollars to the farmer's product. If a fresh supply of farm workers came into his neighborhood and applied for work among the farmers, they could not get jobs at thirty dollars a month. If they are to get jobs at all, the wages of all hired men must come down, for their productivity per man will decline.

It must be evident that the productivity of labor at any given time is dependent upon its supply. It depends, of course, upon many other factors—on the skill, health and strength of the workman, upon his education, upon the steadiness with which he sticks to his job, upon his loyalty to his employer. Workmen who do not believe these things are enemies of the existing order of society, and especially of labor.

6. *Machine competition.*—We have already called attention to the fact that capital and labor are allies, that each needs the assistance of the other, that an increasing supply of capital tends to increase the demand for labor, and to bring to it more employment and higher wages.

Despite the truth of this statement, capital and labor are in a state of constant competition. The entrepreneur, the man directing their employment, is always seeking to produce at the lowest possible cost, and is always comparing the relative advantages to him of machines and men. Countless machines now do the work formerly done by the human hand, and this process of labor displacement by machines will doubtless continue indefinitely.

What is the general effect of these labor-displacing machines upon wages and human welfare? It is enough to say here that invention is the mother of industrial progress, and that the world today is immensely richer than it would have been had labor leaders been able to bar the introduction of new machines into shops and factories. Machinery has increased the supply of wealth, has cheapened the prices of the necessaries and comforts of life, has indirectly tended in the long run to raise wages, and has in some countries enabled the ordinary workman to live in a home with comforts and luxuries instead of in a hovel.

But the fact remains that machinery is a competitor with labor, and that the entrepreneur always seeks to accomplish his purpose by the employment of that factor which costs him less. If he wishes to increase his output, he may, for example, be able to do so by the employment of one hundred more men, or he may do it by the purchase of ten more machines and the employment of only ten more men. Which course he will adopt depends very much on the rate of wages and the rate of interest. The net result of this competition between capital and labor is that each tends to get its share of the product and no more.

7. *Various classes of labor.*—Economists sometimes theorize about the general rate of wages, but there is no such thing, and we will therefore not waste time considering it.

All our readers are familiar with the fact that there are many different kinds of working men in any country. Roughly we first divide them into the skilled and the unskilled. The unskilled perform tasks requiring a maximum of muscle and endurance and a minimum of brains and training. In common speech they are usually referred to as day laborers.

There are numerous grades of skilled workmen and the wages of these tend to vary in proportion to the difficulty and cost in acquiring the necessary skill. In ordinary times numerous factory workers receive low wages because their tasks are simple and easily mastered, so that there are numerous applicants for the jobs. It takes but little training or knowledge to dispense soda water acceptably, to sell a limited number of articles behind the counter of a department store, or to operate a typewriter, so that in normal times there are many candidates for every open position, and the wage is small.

Instead of there being a general rate of wages, there are as many different wage rates as there are different trades or occupations. A super-abundance of labor in one trade may cause a low rate of wages, even while a comparatively high rate prevails in another occupation requiring no more training or skill, for a man cannot easily give up one occupation and take up another. Young men in deciding upon their careers are prone to choose those trades and occupations which at the time are paying the highest wages. In a generation or so these callings, as a result, are over-supplied with labor and wages tend downward.

In some callings wages are higher than in others because of the disagreeable natures of the tasks that have to be performed. An ignorant servant girl, knowing but little about cooking, gets a higher net wage in the United States than the average fairly well educated girl who works in a store or business office. Coal mining in the United States is largely the work of ignorant foreigners. Only a very high wage would tempt native born Americans into such work.

But we need not go into further details on the subject of this section. The important thing to remember is that there are various classes, that the working men of the different classes receive different rates of wages, and that the working men in one class are usually incapable of competition with those of another class.

8. *Wages and the standard of living.*—The rate of wages paid to men in any trade or calling depends very much upon their standard of living, and any circumstance which tends to raise that standard tends to raise the wage; and for the following reasons:

First, the man whose standard of living is fairly high, who eats good food properly cooked, who sleeps in well ventilated rooms under a tight roof, is physically and mentally more efficient than one who lives in poorer surroundings and who eats poorer food. As the standard of living rises, in any community, working men become more efficient and productive, and demand and receive higher wages. A higher wage is paid, not merely because the worker demands it, but because he earns it.

Second, a man who has been able to give his wife and children more comforts than he enjoyed in his own youth is likely to be anxious that his children shall be able to earn a good living, and his wife is equally anxious with him. So they practise many economies in order that their children may have a better education than they had and be fitted for a calling requiring superior ability and training.

Finally, a young man who has learned a trade and is drawing a wage enabling him to live better than he ever lived at home is, consciously or unconsciously, deterred from an early or reckless marriage by reluctance to lower his standard of living, and perhaps by ambition some day to be the head of a family living in good circumstances. If such a young man marries and has children, he and the mother are likely to be eager that their children fare as well as themselves if not better. So it happens that the standard of living is a factor in influencing both the efficiency of labor and the supply of labor, and hence in determining the rate of wages.

It does not follow, however, that the standard of living among any group of working men can be raised merely by raising their wages. The desire for a higher standard of living must originate within the man himself. Many men receiving an increase in wages squander it on vices and foolish luxuries. This fact received frequent illustration during the four years of the war in Europe, when in many different industries, on account of the imperative demand for munitions and war supplies, coupled with the shortage of labor, wages rose out of all proportion to the increase in the cost of living. Many workmen in the United States, and doubtless in other countries as well, made fantastic use of the large incomes which the war brought them, indulging gloriously in the luxuries of the very rich, instead of investing a portion of their earnings and using the balance to improve their mode of life in a way that might be permanent.

An American manager once took charge of a Mexican plantation. He found the peons working for a very low wage, less than fifty cents a day in American money. He was distressed and promptly ordered a doubling of the wages. On the Monday following the first week of the double wage no peons showed upon the plantation, and only a few appeared on Tuesday. Many of them had taken advantage of the opportunity to lengthen their usual Sunday carousal into the middle of the week.

9. *Labor organizations.*—During the last one hundred years laboring men and their friends have given much thought to the so-called labor problem and to measures which would seem likely to improve the conditions under which men work, and protect them from exploitation by their employers. There is exploitation when an employer takes advantage of a workman's weakness or helplessness and secures the benefits of his labor without proper compensation. Over a century ago the labor movement resulted in the organization of various trade unions, and during the last fifty years similar organizations have grown up in the United States. The purpose of a trade union is to look after the welfare and guard the rights of its members, who are skilled artisans in some trade. In the United States the more general interests of the labor-

ing classes are guarded by a federation of unions called The American Federation of Labor.

For a long time employers fought most vigorously and uncompromisingly against the growth of trade unionism and against other forms of labor organization, feeling that these combinations of labor were equivalent to conspiracy against employers. Many of them have believed sincerely that the ultimate effect of trade unionism must be hurtful to society and to the laboring classes as a whole. Not many years ago only the exceptional employer at loggerheads with his men would negotiate with a committee representing them, especially if the committee happened to contain men not in his employ, and many employers would promptly discharge a man on discovering that he was a member of a union. The warfare between the advocates of the "open shop" and those who defend the "closed shop," in which only union men are employed, still goes on, but the tide of popular opinion has turned generally in favor of labor organizations.

Labor organizers insist upon the right of what is called collective bargaining, and they seek to enforce the recognition of this right chiefly by the threat of strikes. Their leaders call attention to the fact that an individual workman is helpless if his wage is reduced, nor is a body of unorganized workmen able to insist effectively upon just wages, reasonable hours of labor and proper environment. But when employers are faced by an organized body of men, whose representatives are able to stop the wheels of industry in many factories in different cities, experience has proved that it is wise for employers to treat these representatives respectfully and to submit their cause to arbitration if necessary.

Trade unionists have made many very serious mistakes and have often caused the public much annoyance and exasperation, sometimes ordering a strike without just cause so far as the public was informed, sometimes refusing to keep an agreement into which the employer had entered with good faith, sometimes walking out without notice and without grievance, merely because they were in sympathy with the strikers in some other shop.

Nevertheless, these and other evils of trade unionism are more than counter-balanced by the good they are doing. They stand for temperance, for education, and for clean and decent living. They encourage reading and especially the study of political economy, and they seek in many ways to raise the standard of living among their members.

10. *Education.*—The interests of the working man are receiving more consideration today in all civilized countries than ever before. Many organizations exist having for their chief purpose the improvement of labor conditions, and countless statutes are enacted every year having the same end in view. Employers are generally inclined to take a more sympathetic attitude toward their employes, and when the two disagree public opinion usually takes sides with the employes. Thoughtful people realize more than ever

that the labor problem cannot be solved at all unless it is first definitely recognized to be a human problem, the correct solution of which must bring increased welfare and prosperity to all classes.

Here we shall touch only upon the most important step that society must take if we are ever to reach anything like an economic millennium, every man having work which he loves because he is fitted for it and able to support his family in comfort. And that very important step can be summed up in a word which people have heard so often that it is often meaningless to them, namely, education.

Nobody denies that it is worth while for a nation to do its utmost in the invention and perfection of machines in order that it may be a large producer of wealth and have a commanding place in the world's markets. But in the production of wealth men are more important than machines. Yet as a nation we are almost heedless and indifferent with regard to the development and training of the economic or productive faculties of our children. We Americans have bragged about our red school houses and about our universal education. Yet in our country schools the boy from the farm cannot learn the simplest rudiments about agriculture, nor can the farmer's daughter learn anything that will be of much value to her as a wife and mother. And in our great cities there is very little opportunity for a poor boy to learn a trade or to master the elements of business science and business practice.

Meantime population goes on rapidly increasing among the poor, and masses of children, barely thru the public schools, knowing a little about arithmetic and geography, and less about the English language, line up before factories and business houses clamoring for work. They do not know how to perform any particularly valuable service for society, and many of them will never learn, for they will necessarily receive a low wage if they get employment, will live in poverty, and have no red blood and no ambition.

Unless something is done by society, by those who have the power, the wealth and the influence, to brighten the outlook of the poor in the United States and in other countries as well, only an inconvincible optimist can look into the future without visions of universal Bolshevism, anarchy and chaos, and the first and most important step, I repeat, must be the proper training of children. The most dangerous enemy of organized society is ignorance, not merely ignorance of reading, spelling and writing, but ignorance of the significance and importance of government, ignorance of the laws of health, ignorance of the laws governing the production and distribution of wealth, ignorance of the duties and responsibilities of parenthood. Society in self-protection must quickly take steps that shall insure the destruction of ignorance of this kind. This means that there must be many more school houses and training shops, and more and better trained and better paid teachers, until the day shall come when no boys or girls will be permitted to reach maturity, no matter how poor or how rich their parents, without having learned how to do work for which there is a demand, and for which fair compensation is offered.

This is not socialism, but the opposite. It is the logical and necessary goal of the present competitive system. It is the only sure way to solve the labor problem.

REVIEW

Explain the fact that altho workers may receive an increase in money wages, this does not always mean an increase in real wages; that there may even be a decrease in real wages.

How is labor subject to the law of diminishing returns?

Is there such a thing as a general rate of wages which can be applied to all classes of labor?

Does the standard of living rise as the result of better wages, or does it rise as the result of other conditions and demand better wages?

Discuss the evolution of trade unions.

CHAPTER XVII

PROFITS

1. *Gross profit.*—As was pointed out in Chapter II, Volume 1, the word profit is the most significant and interesting one in the whole vocabulary of business. It is really the end and aim of business.

In every day speech the word profit is rather loosely used to include all the earnings of a business above its expenses. In general the expenses of any particular business consist of the actual outlay for wages, interest and rent. When the sum of these items has been deducted from the gross earnings or receipts, we have a remainder which is popularly known as the gross profit.

To many men and to some women business possesses an almost irresistible lure. I once knew a young grocery clerk who was so faithful, accurate and obliging that his employer paid him an unusually large salary, and he saved money. When he was about twenty-three years old he married a fine girl who had worked as cashier in a large hotel and had saved money. She was more ambitious than he and had distaste for the dull routine of a job.

"Jack," she said to her husband, "we have money enough to start a little grocery of our own. You know the grocery business by this time, and I can keep the books, take care of the cash, and help you behind the counter. I won't mind working sixteen hours a day if it is for our own business."

Jack finally was persuaded, and when they calculated their profits at the end of their first year in business, they found that the net earnings of the store in which both had worked did not exceed the wages which Jack alone had been getting as a clerk. There were some important business lessons that he had had no opportunity to learn while serving merely as a clerk. For instance, he was not a shrewd buyer, and both he and his wife were a little too easy in their extension of credit. Furthermore, their capital was so small that they could not take advantage of discounts, nor could they carry such large and varied stocks as were found in the stores of their competitors. Nevertheless they stuck grimly at their business, gradually increased the number of their customers and the volume of their sales, learned a lot about buying, discharged their delivery boy, and embarked upon a "cash and carry" business.

The profits of their third year, according to the wife's bookkeeping, amounted to three times what Jack's wages had been as a clerk, and some of that profit had gone back into the business, increasing the quantity and variety of the goods they were selling. They figured as profit the balance that remained after the expenses had been paid, and the main items of expense, besides the purchase price of the goods they sold, were rent, insurance, light and heat. As they did all the work and used only their own capital, no deduction was made on account of wages or interest. Profits calculated in this rough way should be called gross profits, to distinguish them from net or pure profit.

2. *Net profit.*—To arrive at what economists and accountants generally agree in calling net profit or net income, certain important deductions must be made from the gross earnings or gross profits. Part of the gross profit is evidently earned by the proprietor's own capital, and it should be treated as interest, not as profit. If the owner of a business is also its manager, devoting all of his time to it, part of the profit is clearly the result of his labor and should be credited to wages. His business should pay him a wage or salary as high as he could earn working for another. If he does business in his own building and pays no rent, he must charge his business with the rental value of his property. He must also set aside each year a sum sufficient to cover any depreciation in the value of his stock and equipment. If he has extended credit to customers, he must set aside a certain sum called by accountants a reserve, to cover the cost of collections and possible losses.

In the study of economics it is not necessary to go into further details on this subject. It belongs in the field of accounting and is fully treated in other volumes of the Modern Business series.

3. *Earnings of business ability.*—No argument or exposition is necessary to make clear the fact that

profit, whether gross or net, is the product of business ability. The man who gets a profit has directed the employment of the labor and capital of himself and others, and has taken a "business chance" as to the amount of his own compensation. He has bound himself to give the landlord a stipulated rent, the capitalist a definite rate of interest, and his employes a wage agreed upon in advance. He made all these positive commitments, risking his capital, his time and his labor, because he believed that he would be able to conduct his business so skillfully and wisely that its gross income would yield a profit to himself after all expenses had been paid. If his competitors are better business men than he, the chances are that he will fail, for in various ways they will render more satisfactory services to the community, will be more efficient in the employment of capital and labor, and will be able to undersell him in the markets.

Men differ in business ability just as they do in physique and muscular power. Some men are business giants, possessing such abilities to direct and command the forces of labor and capital that they deserve to be called generals of industry. Others of less ability we often speak of as captains of industry. The number of pigmies in business, small men incapable of vision, of planning big enterprises, or of inspiring confidence, is legion. The profits which these different classes of men earn when they undertake business enterprises vary almost in direct proportion to their business ability.

The human qualities essential to business success were discussed in the volume "Business and The Man." The most important ones are vision, judgment, initiative, courage and will power.

So evident is the relation between profit and business ability that some economists, notably General Francis A. Walker, treat it as being analogous to the rent of land. Just as there is "no rent land," so there are men of such poor ability that they fail to earn a profit if they undertake any business enterprise. Other men in business barely make a living, being like what the economists call "marginal land." Pursuing the analogy still further, it is concluded or assumed that the profit earned by any man in business measures the difference between his business capacity and that of the man who might be called the marginal business man, the one just able to get a living out of his business. This idea that profit is a kind of personal rent is interesting and illuminating, but does not deserve to be called a theory of profits. The wage or salary paid to a man by his employer is more analogous to rent than is profit.

4. *Corporation profits.*—The greatest amount of the world's business is carried on by corporations, and here as a rule we find no single individual assuming the risks and making the advances essential to enterprise. The risks are assumed by the stockholders, altho they usually have very little to say about the conduct of the business. The management of corporations, altho nominally controlled by boards of directors, is really

in the hands of salaried employes who have proved their ability as business men or as entrepreneurs, and the salary of any corporation employe in a managerial position is, as a rule, made dependent upon his success as a manager, as evidenced by the rate of dividend the corporation is able to pay to the stockholders. In all civilized countries the biggest business men are, as a rule, the servants of corporations, but their salaries represent their profit-making ability.

5. *Business risks.*—Business gets much of its charm from the satisfaction which men feel when they successfully overcome difficulties and dodge perils. Men go into business, of course, to make money, but their enjoyment of it is due not so much to the money they get as to the fact that they are every day struggling against odds under which a weak man is certain to go down. Every business has its speculative side, its perils and risks, and in some businesses these are greater than in others. Here we will consider only certain important ones to which all business men are in some degree exposed.

Every business man is in danger of being out-generaled by his competitors. He may have been drawn into his particular line of business by the large profits which have been made in it during recent years, but other men may have been attracted into it for the same reason, and he may discover too late that the business is being overdone, that too many men are engaged in it, and that he must sell his goods in a weak and declining market.

Unseasonable weather may stifle the demand for his goods, and reduce the volume of his business so much that he will make no profit. A mild, open winter, for instance, may wreck the hopes of dealers in furs and heavy clothing.

The general level of prices may be tending downward, as it did between 1873 and 1897, and again in 1907. It is in times like these that the business man must beware lest he produce goods which he may have to sell at less than cost.

Finally he is always confronted by the menace of trouble with his employes. At the most critical moment his men may demand an increase of wages and walk out, tying up his plant if he does not yield, whereas if he grants a higher wage, he knows that the increased cost may imperil his profit.

6. *Unforeseen profits.*—Some of these perils that we have just been enumerating have their bright side and sometimes yield to the business man a profit larger than he had expected or planned. For some unforeseen reason the demand for his product may be increasing very rapidly so that he will be able to sell at prices yielding him an unusual profit. Some unexpected happening, such as the outbreak of war, may give an unprecedented demand for the articles in which he deals, and the general level of prices may be tending upward instead of downward because of the cheapening of the money metal, or because conditions have encouraged the banks to give to the public a larger use of their credit.

These sources of profit, and others like them, cannot be foreseen, but every business man knows that they exist, and that in the long run they offset the unforeseeable sources of loss.

Some of these unforeseen profits are called conjunctural gains by certain economists, since they are due to an unexpected combination of circumstances. War brings great profits to the manufacturers of military supplies. The death of a king enriches men who happen to have on hand a large stock of mourning goods. An extensive fire increases the profits of the contractor as well as the wages of masons and carpenters; the undertaker profits from an epidemic; the "gasless Sundays" enforced for a while in the United States during our participation in the European war brought a profit to the few livery stables that were in existence.

Profit of this sort is not the result of personal ability, and cannot, as the economist uses the term, be classed with net or pure profit. It is an accidental gain, quite as likely to fall into the lap of the poor business man as into that of the good.

7. *Elimination of the unfit.*—It is a common saying that 90 per cent of the men that go into business are failures. Whether this statement be true or not, it cannot be denied that the percentage of failure is large, or that many men are in business who might get a steadier income if they worked for others. Everybody knows the type of man of whom it is said, "He is all right when he works for somebody else, but he

is a failure when he tries to work for himself." Men lacking the executive qualities necessary for success in the business they take up are soon forced to the wall by the competition of men of superior ability. Most of these men give up the attempt to be independent business managers and content themselves with salaried positions.

There are different grades and classes of business men, just as there are different grades and classes of laborers. The lowest grade of business ability is represented by the man who is able to run a small grocery store, meat market, newsstand or cigar store, and earn a living for himself and family, and perhaps a little more. He is in competition with men of his grade. If he fails to make good as a manager of his small business, he usually becomes a clerk or salesman for one of his competitors. Occasionally these small dealers find themselves in competition with men of much greater ability, who organize chain stores and attract customers by the superior quality of their advertising and service, even tho the goods they sell are no better. The recent development of the chain stores in the United States has caused many a small dealer to give up his business and become a salaried man.

Men of large caliber attempt large enterprises and are in competition with one another. The manager of a department store does not worry much about what small dealers do, but he keeps a keen eye upon the doings and policies of his competitors, the managers of other department stores, for these are always liable to draw great tides of custom away from him.

The case is somewhat different with manufacturers, for production on a large scale makes numerous economies possible, besides the profitable utilization of by-products. The small manufacturer is always in peril and must usually be content with a smaller rate of profit than is earned by his larger competitors. If the larger concerns with their lower costs of production become able to supply the entire market demand, the small fellow is forced to close down. He may sell his plant to one of his competitors and become its hired manager.

Thus, as a result of competition and the desire of men to earn the largest income possible, the process of elimination of the unfit is constantly going on, with the net result that the control of business and industry is in the hands of men who are able to use it most effectively.

8. *Minimum profit.*—On account of the keen competition among business men, economists sometimes speak about profits tending toward a minimum, and they assume that minimum to be a rate equal to the salary which the business man can command if he works for others. Nothing less than that would tempt a man, it is argued, to risk his capital in a business venture.

We must grant the correctness of this view if we restrict its application to business men as individuals. In any country where there is keen competition among entrepreneurs, the profits of some are large and satisfactory, while the profits of others are so disappointing that they give up business and seek salaried positions. If legislation makes business more difficult, it is inevitable that the incomes of certain business men will fall below the minimum, and that they will be forced out of business. This means a lessening of the demand for capital and labor, and a depressing effect upon the rate of interest and upon the rate of wages. If laboring men combine and insist upon an unreasonable wage, the effect is the same, for the lower grades of business men, whom we might call the marginal entrepreneurs, are obliged to throw up their hands and quit, being unable to earn what seems to them to be a reasonable profit.

By a reasonable profit we mean a net income at least equal to what an entrepreneur can earn if he sells his services to others. In the latter case, his employer will be pretty careful not to pay him more than he is worth, and he has a right to feel that when in business for himself he ought to earn at least an equal amount.

Whether a man's wage or salary is reasonable or not depends very much upon the keenness of competition among entrepreneurs and upon the man's ability and willingness to change his place of residence and employment. Because of the reluctance of men to give up old associations, or because of their inability to move without great sacrifice, they sometimes accept a lower rate of compensation for their services than they are reasonably entitled to. But the entrepreneur, as a rule, insists upon a reasonable profit. If he does not get it in business, he seeks it as an employe.

9. *Is there a rate of profit?*—It must be evident to the reader that there can be no such thing as a general rate of profit, just as there is no such thing as a general rate of wages. For men of a certain low order of business ability, who undertake only small enterprises, there is a minimum rate of profit which they unconsciously demand as a condition of their remaining in business. They figure this rate in relation to the amount of capital they have invested, and of course it must greatly exceed the current rate of interest, for otherwise they are not compensated for their labor and worry. Men of a higher grade of ability demand a higher rate of return upon their invested capital. If we suppose that the entrepreneurs of a country might be divided into ten groups, and that the current rate of interest on capital is six per cent, the members of the lowest group might be satisfied if their business yielded to them a return of six or seven per cent plus a reasonable wage. But there is no reason for supposing that they all earn the same rate of profit. If we could have access to the business records of the men in groups higher up in the scale, we should, doubtless, find higher rates of profit, but we should certainly not find any uniform rate prevailing among the members of any one group.

Not long ago a prominent New York accountant, having in his possession the balance sheets and income statement of many business concerns, calculated the rate of profit that had been earned in a certain year by several hundred of them. He found that some had earned over 100 per cent on the capital invested, while the business of others had been carried on at a loss, the average net profits of all amounting to about 16 per cent.

If we knew all the facts about the businesses of a country, we could easily discover the average rate of profits. That would be merely a mathematical problem. But it would not help us to decide what is a normal rate. There can be no such thing as a normal rate of profit.

10. *Profiteering.*—The conclusion reached in the foregoing section is not in accord with much current opinion. There is a popular notion that the earnings of corporations should be limited to what is regarded as a reasonable rate, and that they, therefore, should not be permitted to pay dividends in excess of, say, seven or eight per cent. Earnings in excess of this amount are stigmatized as "excess profits" and are held to be a most legitimate prey of the tax gatherer. A corporation which earns 15 or 20 per cent on its capital is censured as being guilty of what has come to be known as "profiteering." It is taken for granted that such a corporation has underpaid its working men and charged exorbitant prices for its product.

There are undoubtedly many corporations and many business men who are guilty of practices which deserve the name of profiteering, but we must not surrender to the fallacious idea that evidence of their guilt is furnished by the bare fact that they are able to pay high rates of dividends. The big earnings of a corporation, or of a single business man, may be entirely due to the wisdom and efficiency of the management, and the community at large may be getting from such a corporation much cheaper and better service and greater benefit than it gets from another similar corporation whose earnings warrant the payment of no dividends at all. Legislation which is intended to prevent sharp practices, to protect the public against misrepresentation, to guard the rights of labor and improve its condition, is to be commended, but any kind of legislation which is based on the assumption that there is a normal rate of profit, and that any return in excess of this is evidence of profiteering, is certain in the long run to retard the industrial development of a country, check the increase of capital, dull the initiative of the entrepreneur, and lower the wages of labor.

11. *Competitive profits.*—Thus far we have been discussing what the economists call competitive profits, having assumed that every entrepreneur or business man is in competition with others. When competition prevails, the largest profits as a rule are earned by men possessing remarkable vision and initiative, who do new things or old things in new ways. If their huge profits are to continue, they must never rest, for their methods, processes and policies will be studied by others and will be imitated. Hence the tendency

under competition is toward an equalization of costs of production in the various lines of industry and business, toward a market price fairly close to the cost of production, and toward a uniform rate of profit. But this is only a tendency, for certain entrepreneurs are never asleep at their desks, so that imitators are never able to catch up with them.

The large gains of the entrepreneur, made despite the competition of imitators, must not be thought of as wealth taken from society. On the contrary, they are the product of inventions and ideas which have proved a benefit to society, and their beneficial influences continue long after the entrepreneur is in his grave.

A certain manufacturer of soap once remarked casually to his banker: "I made fifty thousand dollars this year out of stuff which in former years we always threw away, not knowing what else to do with it, but with the aid of our chemists we learned how to make it into valuable by-products."

The banker congratulated him. "That's like finding fifty thousand dollars, isn't it?" said the banker. "I suppose that extra profit from the by-products will get larger every year."

"No, it won't; it will get smaller," was the reply. "In a few years our process will be known by every soap manufacturer in the country, and the net result is going to be cheaper soap for everybody."

Incidents of this sort are happening almost every day in the industrial world, and under our competitive system, every entrepreneur being free to develop new methods and processes and to imitate those of his competitors, all the people finally reap the benefit of the business man's initiative and enterprise.

12. *Monopoly profits.*—But when a man possesses a monopoly in the production or sale of any article or service, he is independent of competition and is able to demand a price much above the cost of production. The inventor of a new machine gets it patented, and for a period of years enjoys the advantages of monopoly. As was explained in Chapter VIII, he endeavors to fix the price of his machine at the figure which will in the long run make his sales yield him the largest net profit. Only the law could compel him to put the price near the level of the cost of production.

Monopoly, therefore, is able to withhold from society a certain share of the benefits of invention and progress, and the profits of the monopolist, if he wisely considers the tastes and prejudices of his customers, are larger and more certain than the profits he could earn if he were in competition with his fellows.

The most conspicuous and best known forms of monopoly are of three classes: First, natural monopolies—those possessing more or less exclusive control over certain resources of nature. Second, legal monopolies—those possessing franchises, patents, copyrights, trademarks, etc. Third, capitalistic monopolies—concerns which are able thru their control of a vast amount of capital to produce and distribute goods at costs which render competition on the part of smaller concerns dangerous if not impossible. These capitalistic monopolies are popularly called trusts in the United States.

The reader will not fail to note that a capitalistic monopoly as above defined owes its control of the product to its ability to make a relatively low price. Whatever the profits of such a monopoly, it is clear that a restoration of competition could take place under the terms of this definition only at the expense of the public, which would pay higher prices for the commodity or service. The reader must not assume that large corporations which possess certain monopolistic powers are exercising them to the detriment of the community at large. In the United States the feeling against large combinations of capital has been fanned by demagogs into a very hot flame, and has been responsible for hurtful legislation. The advantages of large scale production must be preserved, for society has it in its power to control the operation of any form of monopoly, and thereby to obtain its proper share of the accruing benefits.

13. *Profits and wages.*—Many people have an idea that the profits of business really belong to labor, and that wages would be higher if the entrepreneur were permitted to take from the business only a reasonable wage for such labor as he performs. This is one of the doctrines of socialism, which is founded on the assumption that all wealth is the product of labor, and therefore belongs to the laboring man.

If the reader has understood our discussion of the laws governing wages and profits and the prices of goods, he will easily detect the fallacy underlying the socialistic view that profit is unjustified, and that the wealth now going to the entrepreneur in the form of profit should be distributed among the working men who helped produce it.

As we have seen, competitive profits in a static society where industrial progress and growth had ceased, would sink toward a definite minimum, every entrepreneur able to earn only a profit sufficient to make him willing to continue in business. Profit would then be merely the wages of superintendence or management, but the profits of all men would not be alike any more than the wages of all workmen. The good business man would earn more than the poor one, but none would get a profit in excess of the salary he might command if he worked for somebody else. The prices of goods as a result of competition among entrepreneurs would always be close to the cost of production. Under such conditions, it would be very clear that the entrepreneur, without whose directive and managing ability the forces of labor would be wasted, was a worker like any of his employes and was getting only a fair wage for his services.

But society is in a dynamic state and probably will be until the end of time. Men are not satisfied with the old ways of doing things and are constantly making improvements. The spur to improvement is profit. Many of our most successful business men spend little time at their desks and do practically no drudgery, but their brains are not resting. If they play golf two or three times a week, they do it not merely because they enjoy the game but because they know they must keep physically fit if they are to solve the problems of their business easily, or discover ways of making their organization more efficient, or find ways of opening up larger markets.

Altho the entrepreneur is thinking primarily of his own profit, nevertheless his thinking and planning inevitably lead to lower costs of production, to lower prices of commodities, to the increase of wealth and to higher wages for labor. If we should take away unusual profits from business men, we should deprive them of the very incentive which now makes industrial progress as certain as the rising and setting of the sun. The Bolshevists have tried the experiment in Russia, and we all know the result.

The reader will find if he consults the statistics of different countries, that wages are highest in those countries where the profits of business are largest, and lowest in countries where business is not prosperous.

14. *Profits and prices.*—The preceding discussion must have already prepared the reader to accept the truth of the statement that profit is not a factor of the cost of production and is not a price determinant. Here we are speaking of net profit, which does not include the wage of management, that part of the gross profit which the entrepreneur might have earned had he been working for someone else. The cost of producing goods is made up of interest and wages.

The rent of land and the net profits of business men do not enter into costs. The landlord gets a share of the world's new wealth because he owns land of more than ordinary fertility. The business man gets a profit because be possesses extraordinary faculties for the production of wealth.

Our great business men do not earn their large profits by charging high prices for the goods they have to sell or by paying low wages to their employes. On the contrary, as has been said several times, they are constantly hunting for better and more efficient methods of production in order that their costs may be lower than those of their competitors, and these lowered costs finally become general, bringing about thru competition a decline of prices.

Thus it happens that the entrepreneur's profit, instead of being an element of cost and raising the prices of goods, is a force working steadily toward lowering costs and lowering prices.

REVIEW

Distinguish between gross and net profits.

What are some of the risks assumed by men in business?

Who is the marginal business man?

Can there be a so-called normal rate of profit for business enterprises?

What constitutes genuine "profiteering"?

What is the relation between profits and wages; between profits and prices?

See note over.

Note: Numerous questions of business practice and procedure are discussed in detail in the Modern Business Reports. The current list will show those which are especially related to this volume. Among them may be mentioned:

19 Index Numbers and Prices.
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